(No Model.)

# J. CAMPBELL.

## WAGON JACK.

No. 546,652. Patented Sept. 24, 1895.

Fig. 1.

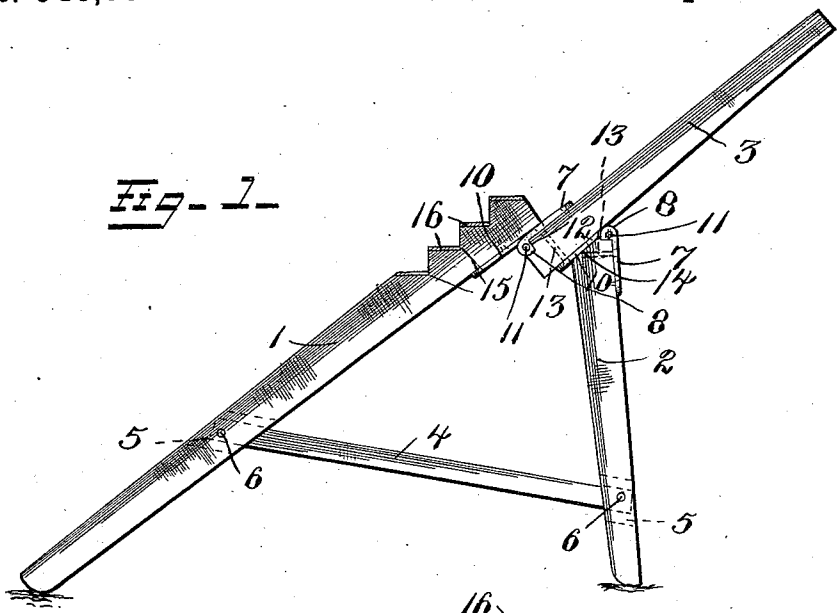



Fig. 2.

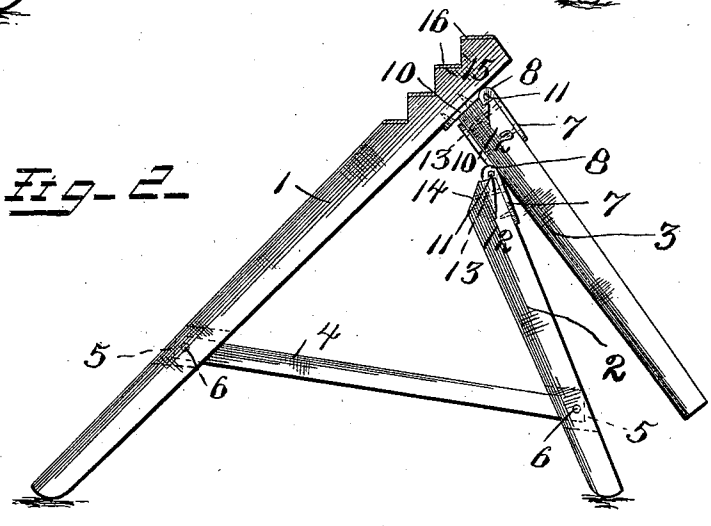
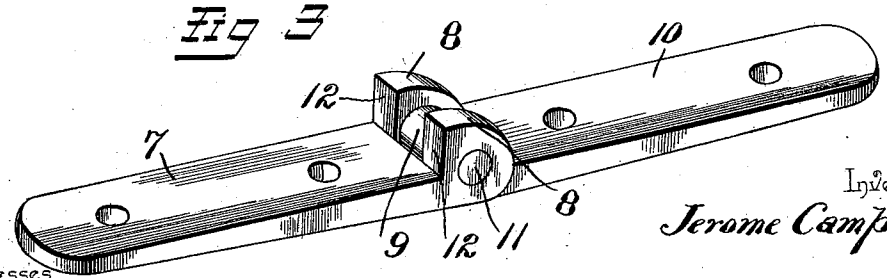



Fig 3

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# UNITED STATES PATENT OFFICE.

JEROME CAMPBELL, OF EAST WINDHAM, NEW YORK.

## WAGON-JACK.

SPECIFICATION forming part of Letters Patent No. 546,652, dated September 24, 1895.

Application filed May 23, 1895. Serial No. 550,376. (No model.)

*To all whom it may concern:*

Be it known that I, JEROME CAMPBELL, a citizen of the United States, residing at East Windham, in the county of Greene and State of New York, have invented a new and useful Wagon-Jack, of which the following is a specification.

This invention relates to an improvement in wagon-jacks, and has for its object to simplify and improve the construction of devices of the nature referred to and to provide a jack which shall be strong, durable, and powerful and capable of raising a heavily-loaded wagon with almost as much ease as a light carriage.

Other objects and advantages of the invention will be brought out in the course of the subjoined description.

The invention consists in certain novel features and details of construction and arrangement of parts, as hereinafter fully described, illustrated in the drawings, and finally embodied in the claims.

In the accompanying drawings, Figure 1 is a side elevation of a wagon-jack constructed in accordance with this invention, the same being lowered or shown in position to receive the axle or other part of a vehicle. Fig. 2 is a similar view with the operating-lever depressed and the device in the position it assumes while supporting a vehicle. Fig. 3 is a detail perspective view of one of the hinges used in the construction of the improved wagon-jack.

Similar numerals of reference designate corresponding parts in the several figures of the drawings.

Referring to the accompanying drawings, 1 and 2 designate a pair of supporting-standards, which are inclined toward each other, as shown, and hinged at their upper adjacent ends to an intermediate operating-lever 3. The lower ends of the inclined standards 1 and 2 are rounded off, as shown, to facilitate the jack being pushed beneath the axle of a vehicle. In order to prevent the spreading of the standards 1 and 2, said standards are connected near the ground by means of a metal strap or bar 4, the opposite ends of which are let into slots or openings 5 in said standards and pivotally mounted therein by means of pins or bolts 6. By means of this construction the standards 1 and 2 are adapted to swing with relation to each other and to the connecting strap or bar 4.

7 designates a hinge which comprises a pair of elongated plates or straps, which are connected at their adjacent ends by means of a knuckle-joint, or, in other words, one of the straps or plates to which the numeral 7 is applied is formed with an oppositely-disposed pair of lugs 8, spaced sufficiently apart to receive between them a central lug or tongue 9, formed integrally with the other strap, (indicated at 10.) The lugs 8 and 9 are provided with transversely-aligning perforations adapted to receive a pivot or rivet 11, by means of which the two straps or plates are hinged together. The two parts of the hinge are preferably formed of malleable iron, and in the process of manufacture the lugs 8 on the strap 7 are formed with perpendicular faces or inner edges, as indicated at 12, which constitute shoulders, the purpose of which will hereinafter appear.

Two of the hinges above described are employed in the construction of the wagon-jack herein illustrated. One of said hinges is interposed between the forward inclined standard 1 and the operating-lever 3, the strap or plate 10 being secured to the lower face and at the upper end of the standard 1 by means of screws or other suitable fastening devices, and the strap or plate 7 being likewise secured to the upper face and inner end of the operating-lever 3. In order to provide a strong connection between the plate or strap 7 and the operating-lever, it is preferred to pass a bolt 13 through said strap or plate adjacent to the hinge, and also through the end of said operating-lever, as indicated in dotted lines, this being the point where the greatest strain will come in lifting a heavily-loaded wagon. The lugs 8 and 9 of the hinge are let into a notch or recess in the end of the operating-lever, and the shoulders 12 bear firmly and snugly against a corresponding wall of said notch, thereby serving to take the strain off the retaining bolts and screws by means of which the hinge is secured in place. The other hinge is interposed between the operating-lever and the other inclined standard 2, the plate or strap 10 being secured to the lower face and inner end of

the operating-lever and the plate or strap 7 secured to the outer face and upper end of said standard 2. The arrangement is such that the shoulders 12 of the hinge bear against the upper end of the standard 2, thereby removing considerable of the strain from the screws and bolts which fasten said hinge in place. The upper and inner corner of the standard 2 is chamfered off, as shown at 14, to form a seat or rest for the inner pivoted end of the operating-lever when the device is in the position indicated in Fig. 1. The forward inclined standard 1 is provided at its upper end with a series of notches or steps 15, the horizontal faces of which are faced with metal plates 16, held in place by means of screws or any suitable fastening devices and forming rests disposed at different elevations for accommodating axles of varying heights.

From the foregoing description it will be apparent that when the operating-lever is depressed, as indicated in Fig. 2, by reason of the particular location of the pivots of the hinges with relation to the direction in which the strain is applied, said operating-lever and the device as a whole will be locked in the position shown in Fig. 2, and remain in such position until said lever is again raised. The wagon-jack is thus self-locking. The inclined standards effectively brace the device and hold the vehicle stationary, and the jack may be used without the necessity of getting under the wagon or between the wheels. It will also be seen that by reason of the particular arrangement of hinges great leverage is obtained, so that a heavily-loaded wagon or truck may be raised almost as easily as a light carriage and with very little pressure on the operating-lever, while at the same time the jack may be made very light and portable.

Changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. A wagon jack comprising in its construction two reversely inclined standards, an operating lever having one of its ends introduced between the adjacent upper ends of said inclined standards, a strap hinge interposed between the end of the operating lever and one of said standards, and a second strap hinge interposed between said operating lever and the adjacent end of the other standard, substantially as and for the purpose specified.

2. In a wagon jack, a pair of inclined standards, in combination with a lifting lever interposed between the upper ends of said standards, a hinge interposed between said lever and one of the standards and having a shoulder bearing against said lever, and a second hinge interposed between said lever and the other standard and having a shoulder bearing upon the upper end of said standard, all arranged for joint operation substantially as and for the purpose specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JEROME CAMPBELL.

Witnesses:

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