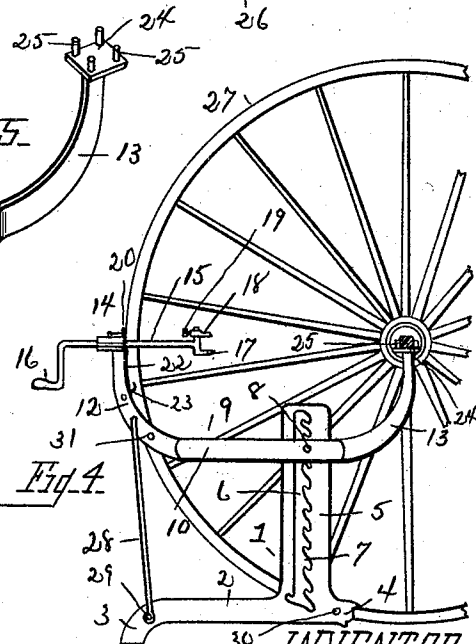
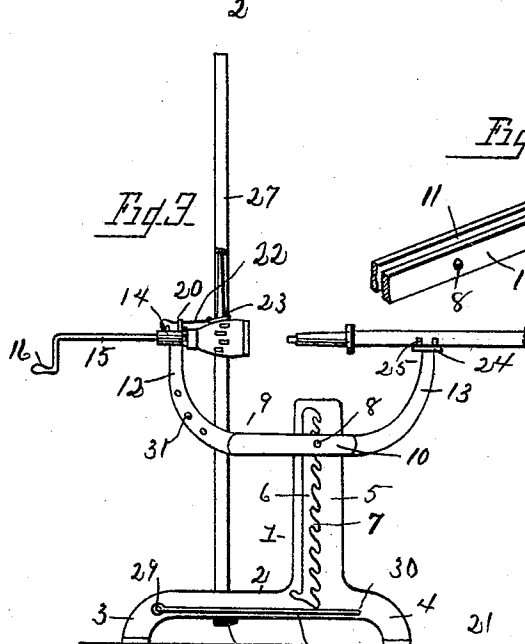
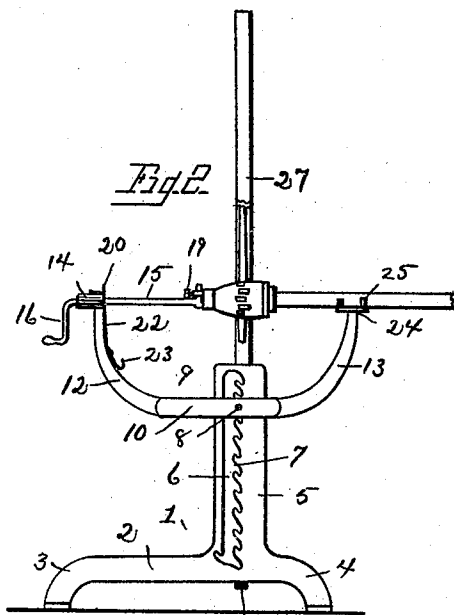
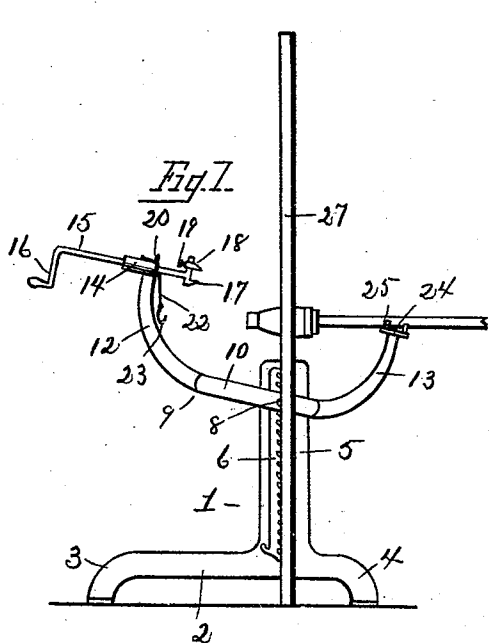


(No Model.)

C. R. MAYNE.
COMBINED WAGON JACK AND WRENCH.

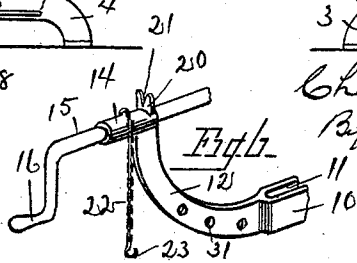
No. 496,692.

Patented May 2, 1893.



WITNESSES

Carroll J. Webster
Floyd R. Webster



INVENTOR
Charles R. Mayne
By William Webster
att'y

UNITED STATES PATENT OFFICE.

CHARLES R. MAYNE, OF TOLEDO, OHIO.

COMBINED WAGON JACK AND WRENCH.

SPECIFICATION forming part of Letters Patent No. 496,692, dated May 2, 1893.

Application filed February 16, 1893. Serial No. 462,586. (No model.)

To all whom it may concern:

Be it known that I, CHARLES R. MAYNE, of Toledo, county of Lucas, and State of Ohio, have invented certain new and useful Improvements in a Combined Wagon Jack and Wrench; and I do hereby declare that the following is a full, clear, and exact description of the invention, which 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 part of this specification.

My invention relates to a combined wagon jack and wrench, and has for its object to construct a device of this character that shall be inexpensive of construction, and convenient in operation, with an adaptability for use either in lubricating the spindle, or sustaining the axle when the wheel is removed.

The invention consists in the novel features illustrated, described, and hereinafter pointed out in the claims.

In the drawings: Figure 1 is an elevation of the wheel and a portion of the axle, with the jack in position to raise the same. Fig. 2 is a like view with the parts elevated and the wrench in position to remove the nut. Fig. 3 is a like view with the nut removed from the spindle, and the wheel removed and supported by the jack to allow of lubricating the spindle. Fig. 4 is a side elevation of the wheel, showing the jack employed to raise the axle and sustain the same to allow of removing the wheel. Fig. 5 is an elevation of a portion of the lever for raising the axle, showing the plate and pins for bearing upon and embracing the sides of the axle to prevent the same from becoming displaced. Fig. 6 is an elevation of the opposite end of the lever, showing the chain and hook for securing the wheel when removed for the purposes of lubrication.

1 designates the support, comprising the horizontal base 2, having curved end portions forming front and rear legs 3 and 4 respectively, and the vertical standard 5 extending from the base vertically from near leg 4 in order to allow the greater portion of the base to project forwardly of the standard. Standard 5 is formed with a longitudinal slot 6 and an inclined toothed rack 7, into which

a pin 8 of the lever 9 rests as an adjustable fulcrum. Lever 9 is formed with a straight body part 10 centrally bifurcated to form a loop 11 through which standard 5 passes, the pin 8 being arranged transversely of the loop and secured in the sides of the bifurcated portions.

Extending upon each end of the body part 10 are front and rear curved end portions 12 and 13 respectively, the front end having a tubular box 14 in a plane parallel with the body portion, into which is journaled the rod 15 of a wrench. Rod 15 is formed with a crank 16 at one end and a fixed jaw 17 and adjustable jaw 18 at the opposite end, forming a wrench adaptable to nuts of varying sizes, the jaw 18 being held in any desired adjustment by means of a set screw 19. Box 14 is preferably formed with a transverse plate 20 which projects above the same and is formed with a V shaped recess 21 into which any desired link of a chain 22 secured upon the box, may be inserted to adjust tension upon the chain, when hook 23 of the same is engaged with the spoke of a wheel, as shown. The rear curved end 13 is formed with a flat top 24 upon which the axle rests, and in order that the axle may be held from slipping off from the plate, there are four lugs 25 formed upon the plate, one upon each corner, so that the axle is held upon the plate, whether the jack is used parallel with the axle as shown in Figs. 1, 2 and 3, or at right angles to the same as shown in Fig. 4.

It will be observed that pin 8 is secured in the lever nearer the back than the forward end, in order that there may be a leverage when pressing down upon the same.

In operation, if it is desired to remove the wheel to lubricate the spindle, the front leg is passed through the wheel from the rear side, causing the standard 5 to extend directly under the spindle; pin 8 is now engaged with one of the teeth of the rack at a height upon the standard to cause the lever to raise the wheel when box 14 and plate 24 are in horizontal alignment, so that the inner portion of the rim 26 of the wheel 27 will bear against the under side of the horizontal portion of the base 2. The lever being adjusted to the proper height, it is necessarily inclined to allow of passing the rear end under the

axle, when upon bearing down upon the front end, the axle is raised, and when the two ends of the lever co-incide horizontally, the rim of the wheel is caused to bear against the horizontal portion of the base, and the wrench is in proper alignment with the nut to be engaged therewith, when upon turning crank 16 of rod 15, the nut is unscrewed and removed from the spindle, and the wheel is moved forward from the spindle, the rod slipping in the box meanwhile, and the wrench remaining within the hub to sustain the same, when hook 23 is engaged with a spoke, the chain put in tension, and secured by passing a link into the V shaped recess 21 of plate 20 and the wheel is held firmly in vertical position, and is placed upon the spindle by a reverse movement. Should it be desired, however, to more firmly secure the lever in position, I have provided a rod 28, the headed end of which is passed through a perforation 29 in the base, and the rod is then bent at right angles and parallel with the base, the opposite end being again bent at right angles to enter a perforation 30 in the base, when the rod is not in use, or to enter one of a plurality of perforations 31 in the outer end of the lever. When it is desired to remove the wheel entirely, the jack is placed at right angles to the axle as shown in Fig. 4 the lugs 25 serving to hold the axle in place, and rod 28 sustaining the lever in horizontal position.

It will be seen that I have provided for adjustment to any height of axle, and also to

any size of nut, with means for sustaining the wheel upon the wrench and the lever to the proper height.

What I claim is—

1. The horizontal base, the legs, the standard formed with a rack, and the adjustable lever having curved end portion terminating in parallel alignment with the body portion, one end having a horizontally moving wrench.

2. The horizontal base portion, the legs of a height to support the base above the wheel rim, the standard formed with a longitudinal slot and a rack, the lever formed with a bifurcated horizontal portion to receive the standard, an upwardly curved end with a flat top and a plurality of projections, and an upwardly curved end having a box and wrench rod journaled therein.

3. The base and standard, a lever adjustably pivoted upon the standard, one end having a plate to contact with the axle, the opposite end formed with a box, the wrench slidingly journaled in the box, a chain and hook secured to the lever, and a plate having a V shaped recess to receive and hold the chain in adjustment.

In testimony that I claim the foregoing as my own I hereby affix my signature in presence of two witnesses.

CHARLES R. MAYNE.

Witnesses:

WILLIAM WEBSTER,
CARROLL J. WEBSTER.