(No Model.)

J. S. ROBERTS.

JACK FOR TURNING FLY WHEELS OF ENGINES, &c.

No. 589,031. Patented Aug. 31, 1897.

Fig: 1.

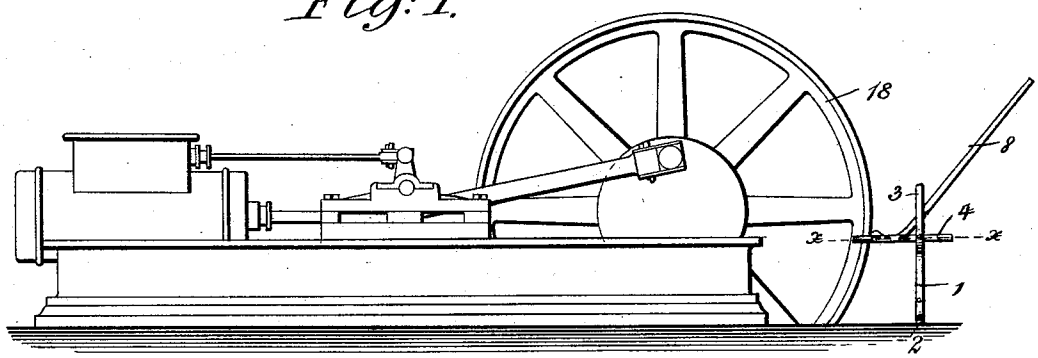


Fig: 2.

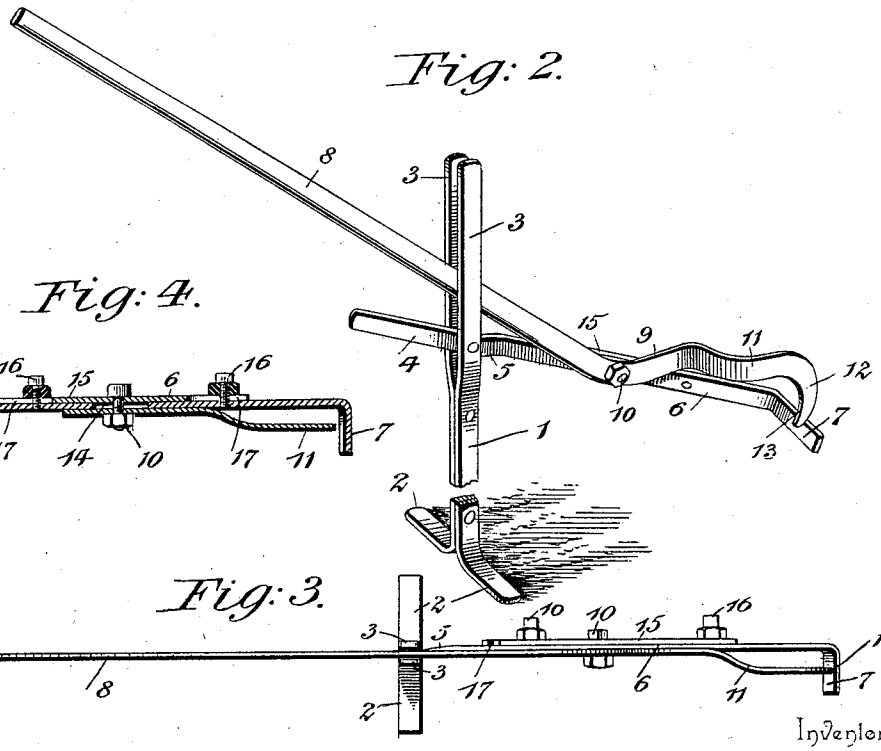


Fig: 4.

Fig: 3.

Inventor

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Witnesses

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UNITED STATES PATENT OFFICE.

JOHN S. ROBERTS, OF GRANBURY, TEXAS.

JACK FOR TURNING FLY-WHEELS OF ENGINES, &c.

SPECIFICATION forming part of Letters Patent No. 589,031, dated August 31, 1897.

Application filed April 26, 1897. Serial No. 634,001. (No model.)

To all whom it may concern:

Be it known that I, JOHN S. ROBERTS, a citizen of the United States, residing at Granbury, in the county of Hood and State of Texas, have invented a new and useful Jack for Turning Fly-Wheels of Engines or other Like Objects, of which the following is a specification.

The invention relates to jacks for turning fly-wheels of engines, large pulleys, and other like objects. The object of the invention is to provide a device of this character which is simple in construction and capable of exerting great force upon the object to be turned.

The invention consists in the several details of construction and combination of parts, as will be hereinafter fully described, and then particularly pointed out in the claims.

In the drawings, Figure 1 is a side elevation of an engine and my improved jack in position to turn the fly-wheel. Fig. 2 is a perspective view of the jack. Fig. 3 is a top plan view. Fig. 4 is a section on the line $x\,x$ of Fig. 1.

Similar reference-numerals indicate similar parts in the several figures.

1 indicates a vertical standard, which is provided with a suitable supporting base-plate 2. The upper end of the standard is bifurcated to form spaced arms 3, between which and near their lower ends the bar 4 is pivoted at a point intermediate its ends. This bar is offset, as indicated at 5, in order to bring what will be termed its "front" portion 6 into alinement with one of the arms 3. The front end of the bar 4 is bent at substantially a right angle to form a horizontally-disposed jaw 7, adapted to engage the inner face of the rim of the wheel or pulley to be turned.

8 indicates a lever the front end portion 9 of which is bent at an obtuse angle to the main portion, and the lever is pivoted at its angle on a bolt 10, which is secured in the front end portion 6 of the bar 4, about midway between the jaw 7 and the standard 1. The lever fits loosely between the spaced arms 3, and that part of the lever in front of the pivot-bolt 10 is offset, as indicated at 11, to bring its front end about midway the length of the jaw 7, and this front end is bent downwardly to form a vertically-disposed jaw 12, adapted to engage the outer face of the rim of the wheel or pulley to be turned. The engaging face of the jaw 12 is curved, as indicated at 13. The opening 14 in the bar 4, through which the pivot-bolt 10 passes, is elongated to permit the adjustment of the lever 8 longitudinally of the bar 4 in order that the space between the jaws 7 and 12 may be adjusted to suit rims of different thicknesses. The bolt 10 extends through a plate 15, and this plate is adjustably secured to the bar 4 by means of set-screws 16, which pass through the slotted openings 17 in the plate 15 into threaded openings in the bar 4. When it is desired to adjust the lever 8 relatively to the bar 4, the set-screws 16 are loosened, and the lever 8 and the plate 15 can then be moved longitudinally of the bar 4 to the required position, and by tightening up the set-screws 16 the parts will be firmly secured in their relative positions to each other.

When it is desired to turn a wheel, such as the fly-wheel 18, (shown in the drawings,) the jack is placed in position, with the jaw 7 engaging the inner face of the rim of the wheel, and in order to permit this engagement of the jaw with the rim the rear end of the lever will have to be elevated in order to increase the space between the jaws 7 and 12. As soon as the jaw 7 is placed in position the rear end of the lever will be depressed, and this will first cause the jaw 12 to bind firmly against the outer face of the rim and thereby clamp the rim firmly between the two jaws 7 and 12. A further downward movement of the lever will cause the rod 4 to rock on its pivot in the standard, and thereby cause the fly-wheel to be turned a short distance. When the wheel has been turned slightly and it is desired to take another hold lower down on the rim, all that is necessary is to elevate the rear end of the bar, when the jaws can be adjusted on the rim at a lower point, and by depressing the rear end of the lever the wheel can be turned still further.

It will be understood that 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 I claim is—

1. In a jack for turning the fly-wheels of engines, or similar objects, the combination

of a supporting-standard, a bar pivoted to said standard and provided at its front end with a jaw adapted to engage the inner face of the rim of the wheel, a lever pivoted to said bar at a point intermediate the standard and the front end of said bar, and a jaw on the front end of the lever adapted to engage the outer face of the rim of the wheel, substantially as described.

2. In a jack for turning the fly-wheels of engines, or similar objects, the combination of a supporting-standard having spaced arms at its upper end, a bar pivoted between said arms near their lower ends, said bar being offset to bring its front portion into alinement with one of said arms, and having its front end bent to form a horizontally-disposed jaw adapted to engage the inner face of the rim of the wheel, a lever pivoted to the said bar at a point intermediate the standard and the front end of the bar, said lever working between the spaced ears and having its front end portion bent at an obtuse angle to the main portion, and a jaw on the front end of the lever to engage the outer face of the rim of the wheel, substantially as described.

3. In a jack for turning the fly-wheels of engines, or similar objects, the combination of a supporting-standard, a bar pivoted to said standard and provided at its front end with a horizontally-disposed jaw adapted to engage the inner face of the rim of the wheel, a lever pivoted to said bar at a point intermediate the standard and the front end of said bar, that part of the lever in front of its pivot being offset to bring its front end about midway the length of the jaw on the bar, and a vertically-disposed jaw on the front end of the lever having a curved outer face adapted to engage the outer face of the rim of the wheel, substantially as described.

4. In a jack for turning the fly-wheels of engines, or similar objects, the combination of a supporting-standard, a bar pivoted to said standard and provided at its front end with a jaw adapted to engage the inner face of the rim of the wheel, a plate adjustably secured to the bar on one side thereof, a pivot-pin secured to said plate and passing through an elongated opening in said bar, a lever pivoted on said pin on the opposite side of the bar, and a jaw on the front end of the lever adapted to engage the outer face of the rim of the wheel, substantially as described.

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

JOHN S. ROBERTS.

Witnesses:
J. L. WOHLFORD,
JNO. J. HINER.