

No. 612,982.

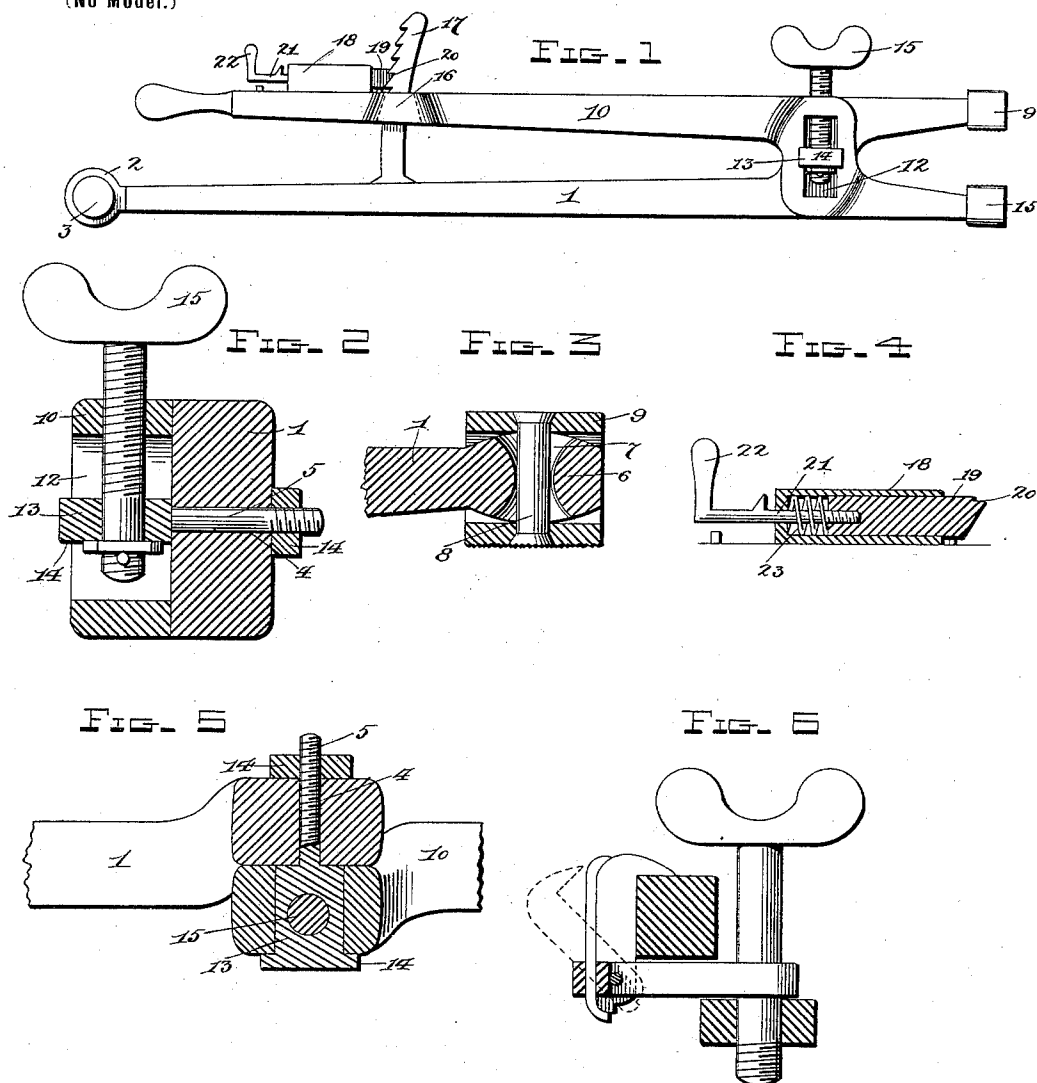
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F. V. WHITMAN & J. W. JAMES.

WRENCH TONGS.

(Application filed July 7, 1898.)

(No Model.)



Witnesses

Witnesses
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By

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UNITED STATES PATENT OFFICE.

FRANK V. WHITMAN, OF WALKERVILLE, MONTANA, AND JOHN W. JAMES,
OF DUNCAN, INDIAN TERRITORY.

WRENCH-TONGS.

SPECIFICATION forming part of Letters Patent No. 612,982, dated October 25, 1898.

Application filed July 7, 1898 Serial No. 685,312. (No model.)

To all whom it may concern:

Be it known that we, FRANK V. WHITMAN, residing at Walkerville, in the county of Silver Bow, State of Montana, and JOHN W. JAMES, residing at Duncan, in the Chickasaw Nation, Indian Territory, citizens of the United States, have invented certain new and useful Improvements in Wrench-Tongs; and we 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.

Our invention relates to carriage-wrenches, and more particularly to that class of wrenches which are designed to grasp the nut and retain it between the jaws after it has been detached from the axle-spindle; and the object is to provide a simple, practical, and effective device for this purpose.

To this end the invention consists in certain features of construction and combination of parts, which will be hereinafter fully described and claimed.

The accompanying drawings show our invention in the best form now known to us; but many changes in the details might be made within the skill of a good mechanic without departing from the spirit of our invention as set forth in the claim at the end of this specification.

In the drawings, Figure 1 is a side elevation of our improved wrench-tongs. Fig. 2 is a transverse section through the dotted line 2 2. Fig. 3 is a detail section of one of the jaws. Fig. 4 is a similar view of the locking-bolt. Fig. 5 is a horizontal section on the dotted line 5 5 of Fig. 1. Fig. 6 is another form of lock for retaining the levers in a locked position.

1 denotes the handle, and its outer end is formed with a transverse socket 2 to receive the grip-rod 3, while its opposite end is provided with a transverse orifice 4 to receive the fulcrum-bolt 5, and its immediate end terminates in an enlarged boss 6, which is provided with a transverse orifice 7, through which the rivet 8 of the encompassing jaw 9 passes.

10 represents the hand-lever, which is formed with a transverse rectangular orifice 12 to receive the rectangular shank 13 of the

fulcrum-bolt 5, which is formed with a flanged head 14 to retain the lever in place.

15 represents a thumb-screw working in the lever, and its lower cylindrical end extends through an orifice in the shank 13 of the bolt 5, and it is prevented from working out by a suitable nut and pin, as shown, while the fulcrum-bolt is also provided with a nut 14 for the same purpose.

The outer end of the hand-lever 10 is also provided with a swiveled jaw 15, corresponding to the jaw 9 on the handle 1, and the opposed faces of these jaws are serrated or checked to insure a firm grip on the nut when clamped between them. The longer arm of the lever 10 is provided with a transverse orifice 16, through which a ratchet-toothed bar 17, fixed on the handle 1, extends.

18 denotes a cylindrical sleeve fixed on the handle 1, and 19 a bolt reciprocating within said sleeve, its toe 20 projecting into the path of the teeth on the bar 17.

21 denotes the shank of the bolt 19, its outer end terminating in a handle 22 with which to manipulate the bolt. This shank is rectangular in form, and it passes through a correspondingly-shaped orifice in the outer end of the sleeve to retain the bolt in working position. 23 represents a spiral spring which encompasses the shank, and it serves to hold the toe of the bolt in engagement with the teeth on the bar.

The manner of using the wrench is as follows: The jaws are adjusted to the nut while the lever 10 is raised, and the thumb-screw 15 turned down to clamp the jaws on the nut. The hand-lever 10 is now forced toward the handle 1, so as to firmly grip the nut between the jaws, and the parts are rigidly locked in this position by the locking-bolt engaging the toothed rack, and by means of the grip-rod 3 the wrench is turned to remove the nut from the spindle. The axle having been properly oiled or greased, the nut is replaced and the wrench removed, the entire operation being performed without soiling the hands.

Having thus fully described the invention, what we claim, and desire to secure by Letters Patent, is—

The combination with the handle 1 formed

with the orifice 12 and the rack-bar 17, and
provided with a swiveled jaw, of the hand-
lever 10 formed with the orifice 4 and pro-
vided with a corresponding swiveled jaw, the
5 fulcrum-bolt 5 passing through the orifices in
the handle and lever, the thumb-screw 15
mounted in the handle and engaging said
bolt 5, and the spring-actuated locking-bolt
mounted on said hand-lever so as to engage
10 said rack-bar, substantially as set forth.

In testimony whereof we have hereunto set
our hands in presence of the subscribing wit-
nesses.

FRANK V. WHITMAN.
JOHN W. JAMES.

Witnesses:

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