

No. 870,886.

PATENTED NOV. 12, 1907.

E. A. JOHNSON.

WRENCH.

APPLICATION FILED JULY 20, 1906.

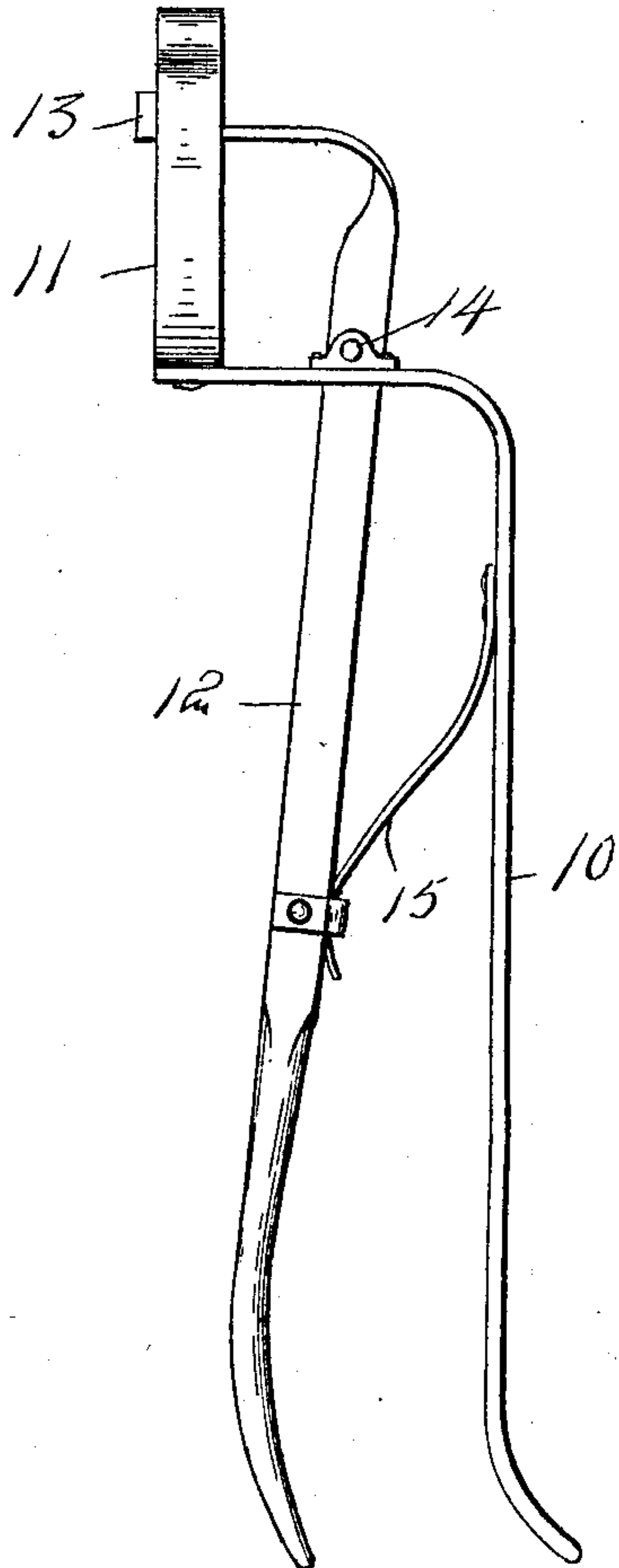


Fig. 1.

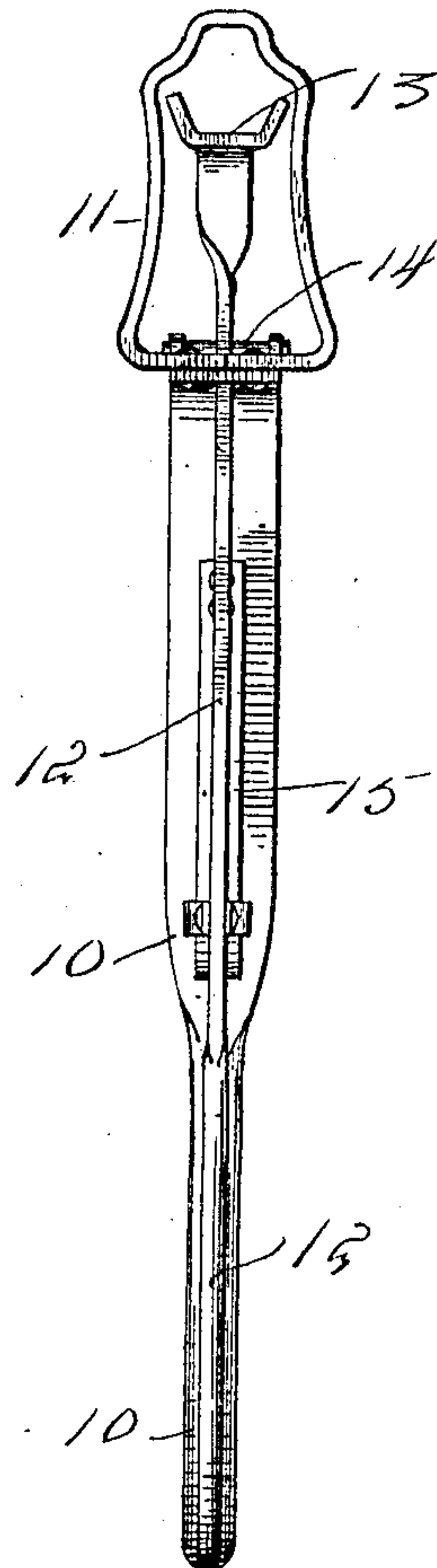


Fig. 2.

Witnesses
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WRENCH.

No. 870,886.

Specification of Letters Patent.

Patented Nov. 12, 1907.

Application filed July 20, 1906. Serial No. 327,048.

To all whom it may concern:

Be it known that I, EVERELL A. JOHNSON, a citizen of the United States, residing at Mohave City, in the county of Mohave, Territory of Arizona, have invented certain new and useful Improvements in Wrenches; and I do hereby 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.

10 This invention has relation to wrenches, especially adapted to be used for turning off the burs or nuts on the ends of carriage axles and the axles of other vehicles and holding the nut turned off while the axle is being lubricated.

15 The invention is fully and clearly illustrated in the annexed drawings forming a part of this specification, in view of which drawings the invention will first be described, as to its construction and mode of operation, and then be pointed out with particularity in the sub-
20 joined claims.

Of the said drawings, Figure 1 is a side elevation of the invention. Fig. 2 is a front elevation.

Similar figures of reference designate similar parts or features, as the case may be, wherever they occur.

25 In the drawings, 10 designates the relatively fixed handle-bar bent at its forward part so as to extend at a right angle to the main portion and provided on the end of the angular part with an open jaw 11, closed on its sides and ends which projects outward in parallel-
30 ism with the main part of the handle-bar. The rearward part of the said open jaw is formed to fit on one side of the axle or spindle nut or bur, while the sides of said jaw are made to fit two opposite sides of the nut.

12 designates a secondary handle-bar disposed below
35 the bar 10, and which extends through a slot formed in the angular part of the bar 10 about midway of its length and is pivoted thereon. The forward part of the last-mentioned handle-bar is also bent down at a right angle to the main portion and extends into the
40 open jaw first mentioned intermediate of its ends and is itself provided with a jaw 13, that, as the handle-bar 12 is rocked on its pivot 14, moves toward and away from the forward part of the open jaw 11, and toward
45 and away from the part of the open jaw to the rear of the jaw 13, thus constituting a dual or double jaw of the open jaw with both of which the movable jaw 13 is adapted to coöperate. The two jaws are of different size and form as shown, so as to adapt them to fit upon nuts or other objects of different size and form.

50 It is now to be noted that, in the use of the wrench, the jaw 11 may be engaged with the bur or nut on the spindle, and by rocking or moving the handle-bar 12 in a direction toward the opposing bar the movable jaw 13 will engage the side of the bur not engaged by
55 the jaw 11 and so grasp the said bur between the said jaws. In this condition of things the burr can be

turned off the spindle, as will be readily understood, without further explanation.

In order to enable the jaws to be opened automatically, as it were, so that they can be first made to en- 60
gage the nut somewhat loosely, a spring 15 is secured at one end to the under side of the fixed handle-bar and bears at its other end on the pivoted handle-bar, thus pressing the handle-bars apart and closing the forward part of the jaw 11 and opening the jaw to the rear of 65
the jaw 13. The gripping of the nut or other object is accomplished by the pressure of the hand on the bar 12, operating it against the spring and causing the movable jaw 13 to press against and hold the nut or other object between it and the rear end of the open 70
jaw 11.

For the purposes of this specification I have termed the jaw carried by the stationary bar as an "open jaw" for the reason that it is open through from top to bottom, though its sides and ends, defining its bounds are 75
closed or made continuous. And while the invention has been described with respect to its use on the burs of carriage spindles it is not confined to that particular use but may be employed wherever found convenient.

The portion of the open jaw in front of the movable 80
jaw is susceptible of being constructed and shaped to fit other nuts upon which it may be made to operate without the aid of the movable jaw, or with it, as desired.

The reason for turning the forward ends of the 85
handle-bars down at a right angle to the main portion is to offset the jaws from the handles so that the former can be readily made to engage the spindle-nut.

It is obvious that parts and features of the device shown as embodying the invention may be varied in 90
form and arrangement, within the limits of mechanical skill without departing from the general nature or spirit of the invention.

What is claimed as the invention, is:—

A wrench comprising a stationary handle-bar having 95
its forward end portion slotted and bent at a right angle to the body portion and provided on its angular extremity with an open jaw extended in a plane parallel to the handle-bar and closed at its sides and ends, combined with a second handle-bar extended through the slot of the 100
angular part of the stationary bar and pivoted on the said angular part, the said second bar itself having its forward end projected downward at a right angle to its body portion and provided on its extremity with a jaw extended into the open jaw, intermediate of its ends, 105
constituting dual jaws of the said open jaw with both of which the intermediate jaw on the pivoted bar is adapted to coöperate.

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

EVERELL A. JOHNSON.

Witnesses:

ANDREW W. SMITH,
WILLIAM W. EWING.