

(No Model.)

W. H. ROGERS.
NUT WRENCH.

No. 460,403.

Patented Sept. 29, 1891.

Fig I.

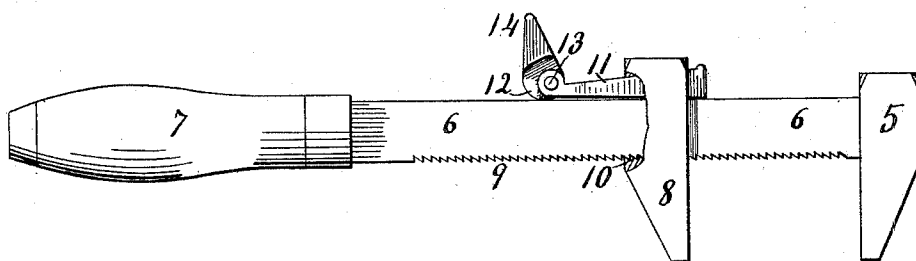
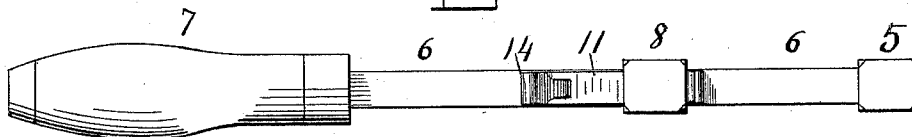


Fig II.



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UNITED STATES PATENT OFFICE.

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NUT-WRENCH.

SPECIFICATION forming part of Letters Patent No. 460,403, dated September 29, 1891.

Application filed June 11, 1891. Serial No. 395,852. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. ROGERS, a citizen of the United States, residing at Kingston, in the county of Frontenac and Province of Ontario, Canada, have invented certain new and useful Improvements in Nut-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.

This invention relates to sliding-jaw nut-wrenches; and its object is to provide means whereby the sliding jaw of the wrench may be quickly set at certain intervals of distance from the fixed jaw, and be thus firmly locked or be readily unlocked by simple movements of the operator's thumb.

To this end my invention consists in the construction and combination of parts forming a nut-wrench hereinafter described and claimed, reference being had to the accompanying drawings, in which—

Figure I is a side elevation of a nut-wrench according to my invention, certain parts being broken away to show the interior; and Fig. II is a back view of the same.

5 represents the head of the wrench, which is formed as a part of or is rigidly fixed to the bar 6.

7 is a handle permanently fastened upon or formed as a part of the bar 6.

8 is the movable jaw mortised through to receive the bar 6 and to slide freely thereon. The under side of the bar 6 is serrated or notched, forming a series of teeth 9, and the inner adjacent face of the jaw 8 is correspondingly notched, forming teeth 10, which register with and engage the teeth 9.

11 is a wedge fitted through the mortise in the jaw 8, against that side of the bar which is opposite to the teeth, and of such proportions relative to the jaw and bar as to force the teeth of the jaw fully into engagement with the teeth of the bar before the butt of the wedge reaches the jaw, so that the wedge cannot be drawn through and lost out of the jaw.

12 is a cam pivoted at 13 to the wedge at its thin end and adapted to bear against the back of the bar 6 in rolling contact therewith. This cam is provided with a projecting lever 14, convenient to be manipulated by the thumb of the operator.

The action is as follows: When the wedge is free in its mortise, the jaw 8 may be slid forward against the nut to be operated upon. Then the wedge is to be drawn backward until it begins to bear between the jaw and knob. Now the operator places his thumb on the lever end 14 and draws it toward him, which has the double effect of first producing a creeping or rolling motion against the back of the bar to draw the wedge as far rearward as it will come, and then by still further pressure, the cam, beginning to slip on the bar, will lift the point of the wedge outward until it is locked rigidly, so that neither it nor the jaw can possibly be moved while thus locked. After the wrench has been used the sliding jaw may be released by the operator pushing forward with his thumb upon the lever 14. The first effect is to release the pressure of the cam from the wedge, next to slide the wedge forward and release the jaw, which is all done by one continuous movement of the thumb.

The advantages of this invention are that the jaw is so rigidly fixed when set for service that it will not yield at all, thus taking a firm hold upon the nut with no liability of slipping and wearing the corners of the nut. It is simple and inexpensive in construction and easily and quickly operated. The jaw is at liberty when unfastened to be slipped from one end of the bar to the other instantly, and all the working parts are in sight, so that it may be immediately understood by any one capable to use a wrench.

Having thus fully described my invention, what I believe to be new, and desire to secure by Letters Patent, is the following:

The combination of a wrench-bar having a fixed head or jaw and provided with a series of teeth at one of its sides, a jaw fitted to engage the said teeth and to slide upon the said bar when not so engaged, a wedge fitted through the jaw to bear against it and against the bar on the side opposite to the teeth, and a cam pivoted to the wedge to act against the wrench-bar, substantially as described.

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

WILLIAM H. ROGERS.

Witnesses:

JOHN MCINTYRE,
FRED HALL.