

J. HERRON.  
WRENCH.

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1,024,075.

Patented Apr. 23, 1912.

Fig. 1.

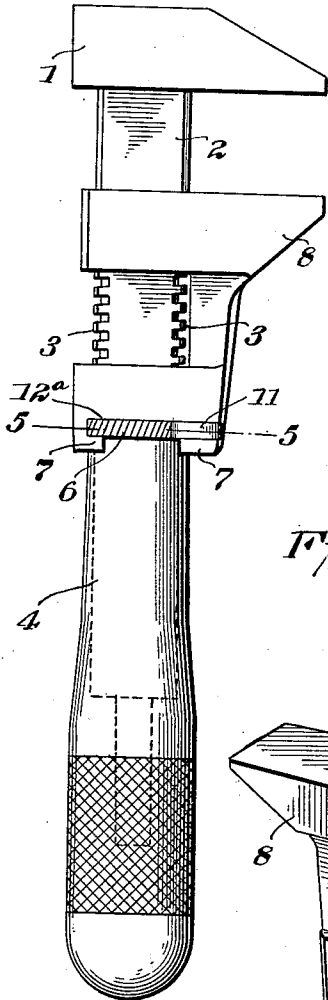


Fig. 2.

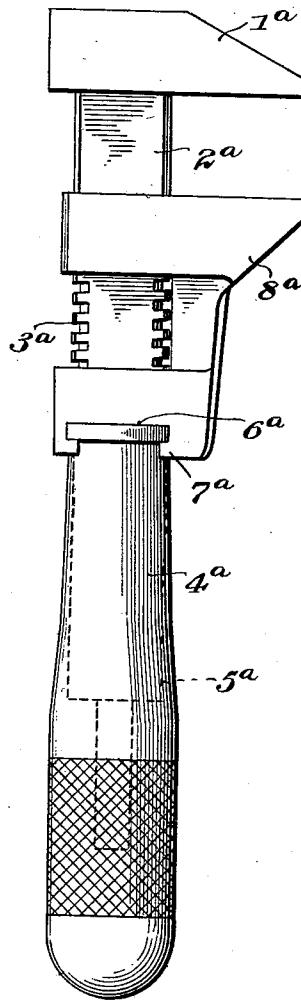


Fig. 3.

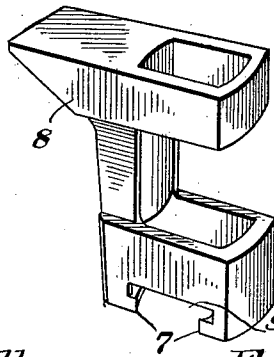
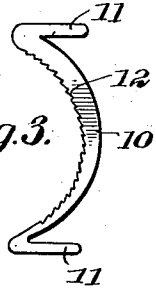
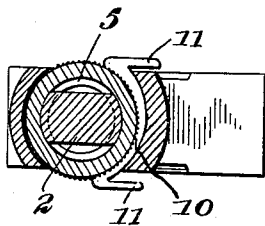


Fig. 4.

Fig. 5.



Inventor

John Herron,

Witnesses  
W. H. Hoodson,  
Juana M. Fallin.

By

W. H. Macey,

Attorney

# UNITED STATES PATENT OFFICE.

JOHN HERRON, OF SAULT STE. MARIE, MICHIGAN, ASSIGNOR OF ONE-HALF TO JAMES R. RYAN, OF SAULT STE. MARIE, MICHIGAN.

## WRENCH.

1,024,075.

Specification of Letters Patent.

Patented Apr. 23, 1912.

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*To all whom it may concern:*

Be it known that I, JOHN HERRON, citizen of the United States, residing at Sault Ste. Marie, in the county of Chippewa and State of Michigan, have invented certain new and useful Improvements in Wrenches, of which the following is a specification.

This invention comprehends certain new and useful improvements in wrenches of the threaded adjustment type, and the invention has for its object a simple, durable and efficient construction of wrench of this character which embodies few parts that may be cheaply manufactured and easily assembled and disassembled, the invention consisting essentially in an improved construction of wrench of this character in which the handle itself constitutes the interiorly threaded or actuating member which has a swivel connection with the stationary jaw and a meshing engagement with the threads of the shank which carries the relatively movable jaw.

The invention also consists in a wrench of this general construction which embodies a locking member of simple and effective construction, arranged to hold the jaws tightly against the work and in properly spaced relation to each other after the desired adjustment has been effected. And the invention also consists in certain constructions, arrangements and combinations of the parts that I shall hereinafter fully describe and claim.

For a full understanding of the invention, reference is to be had to the following description and accompanying drawings in which:

Figure 1 is a side elevation of a wrench embodying the improvements of my invention; Fig. 2 is a similar view of a modification hereinafter specifically described; Fig. 3 is a detail view of a locking member employed with that form of the device illustrated in Fig. 1; Fig. 4 is a perspective view of the relatively stationary jaw of the tool; and, Fig. 5 is a transverse sectional view on the line 5—5 of Fig. 1.

Corresponding and like parts are referred to in the following description and indicated in all the views of the accompanying drawings by the same reference characters.

Referring to the drawing the numeral 1 designates the relatively movable jaw of my improved wrench, the same being secured to

the shank 2 which is toothed or provided with thread sections 3, along its opposite and relatively narrow edges.

4 designates the handle, which is hollow as shown and which is designed to have the shank 2 work therein, and is formed near one end with interior screw threads 5 engaging the threads 3 of the shank. In addition to its interior threads 5, the hollow handle 4 is formed with an exterior annular flange or bead 6 which is adapted to be slipped sidewise in between two lugs 7 that project toward each other as shown and that form between them and the relatively stationary jaw 8 of which they constitute a part, a recess 9 in which the bead or flange 6 is designed to turn so as to effect a swivel connection between the relatively stationary jaw 8 and the handle 4.

Interposed between the flange or bead 6 and one of the lugs 7 is a locking member 10 which is curved as shown and which extends partially around the flange 6, the locking member tapering gradually from one end to the other in thickness and being formed at its ends with outwardly extending finger pieces 11. The opposing faces of the locking member and flange 6 are milled toothed or serrated as indicated at 12 and 12<sup>a</sup> respectively.

From the foregoing description in connection with the accompanying drawings, it is believed that the operation of my improved wrench will be apparent.

In the practical use of the tool, it is only necessary to turn the handle 4 to effect the opening or closing of the jaws, and, after the desired adjustment has been effected, it is only necessary to move the locking member 10 laterally so as to wedge it in between the adjacent lug 7 and the flange 6, so as to assist in holding the jaws tightly together against the work.

It is to be understood that my invention is not limited to the milling or roughening of the flange or bead 6 and the use of a locking member such as indicated at 10. I may dispense with both of these features, for instance, as illustrated in Fig. 2, 1<sup>a</sup> designates the relatively movable jaw, 2<sup>a</sup> the shank with its toothed portions 3<sup>a</sup>, 4<sup>a</sup> the hollow handle receiving the shank, and 8<sup>a</sup> the relatively stationary jaw having a swivel connection with the handle by means of its lugs 7<sup>a</sup> and the bead 6<sup>a</sup> of the handle.

Manifestly with this construction, the handle is also interiorly threaded as indicated at 5<sup>a</sup> so as to engage the threads of the shank.

It will be seen that both embodiments 5 of my invention as herein illustrated and described, are composed of very few and simple parts no separate adjusting nut or the like being employed, but the handle itself serving as the threaded adjusting 10 member actuating with the threaded shank to effect the adjustment of the jaws.

Having thus described the invention, what is claimed as new is:

1. A wrench, comprising a relatively movable jaw, a shank secured thereto and 15 formed with screw threads, a hollow handle adapted to receive the shank and formed with interior screw threads designed to engage the screw threads of the shank, the 20 handle being formed at one end with an exterior annular flange, a relatively stationary jaw mounted upon the shank and having oppositely disposed hooked lugs 25 engaging the flange whereby to effect a swivel connection between such jaw and the handle, and a curved laterally extending locking member interposed between one of 30 said lugs and the outer face of the flange and designed to wedge between said lug and flange face to lock the handle against move-

ment, the ends of the locking member being turned outwardly that is away from the flange and designed to engage the side faces of said lug whereby to limit the movements of the locking member. 35

2. A wrench, comprising a relatively movable jaw, a shank to which said jaw is connected, the shank being formed with screw threads, a hollow handle adapted to receive 40 the shank and formed with interior screw threads designed to engage the threads of the shank, the handle being formed with an exterior annular flange, a relatively stationary jaw mounted upon the shank and 45 formed with oppositely disposed hooked lugs engaging the flange and connecting said jaw with the handle, and a curved locking member partially encircling said flange and extending laterally and interposed between 50 the flange and one of the hooked lugs, said locking member tapering from one end to the other in thickness and the locking member being provided with a toothed edge to engage the flange.

In testimony whereof I affix my signature 55 in presence of two witnesses.

JOHN HERRON. [L. S.]

Witnesses:

J. A. HYNES,

J. H. NEWHOUSE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."