

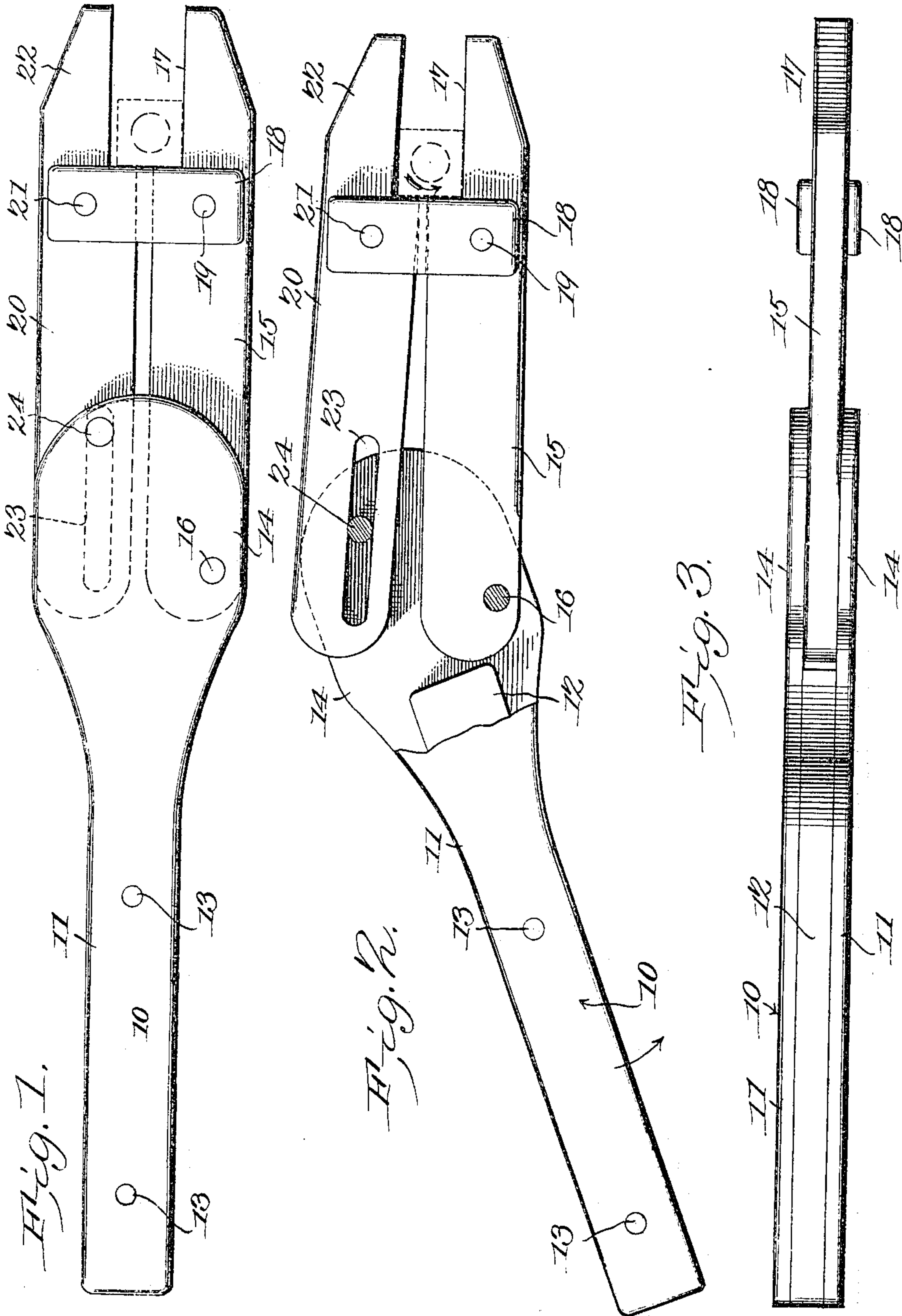
No. 819,192.

PATENTED MAY 1, 1906.

LA FAYETTE T. WEVER.

WRENCH.

APPLICATION FILED AUG. 7, 1905.



Witnesses  
*E. H. Stewart*  
*L. J. Morrill.*

*La Fayette T. Wever,* Inventor.  
by *C. A. Snow & Co.*  
Attorneys



# UNITED STATES PATENT OFFICE.

LA FAYETTE T. WEVER, OF CRAWFORDVILLE, FLORIDA, ASSIGNOR OF  
ONE-HALF TO JOHN M. TOWLES, OF CRAWFORDVILLE, FLORIDA.

## WRENCH.

No. 819,192.

Specification of Letters Patent.

Patented May 1, 1906.

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*To all whom it may concern:*

Be it known that I, LA FAYETTE T. WEVER, a citizen of the United States, residing at Crawfordville, in the county of Wakulla and State of Florida, have invented a new and useful Wrench, of which the following is a specification.

This invention relates to wrenches, and has for its object to provide a wrench embodying new and improved features of convenience, simplicity, efficiency, and reliability.

A further object of the invention is to provide a wrench having a work-engaging opening porportioned to substantially fit the nut upon which it is to be used and provided with means for exerting a powerful grip upon the work.

It is well known that in the construction of bridges, building-frames, railways, and similar work nuts of a substantially uniform size are commonly used and the wrench usually has a rigid work-receiving opening. It is further well known that in works of the kind mentioned the slipping of a wrench from a nut places the workman in great danger of being thrown from the structure.

It is an object of this invention to provide a wrench designed for use upon nuts of approximately the same size and which by the simple act of turning the nut grips it to prevent slipping.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made without departing from the spirit or sacrificing any of the advantages of this invention.

In the drawings, Figure 1 is a view of the improved wrench in side elevation. Fig. 2 is a view of the wrench in side elevation and in position for gripping the nut. Fig. 3 is a view of the improved wrench in edge elevation.

Like characters of reference indicate corresponding parts in all of the figures of the drawings.

In its preferred embodiment the improved wrench forming the subject-matter of this application comprises a handle, designated as a whole at 10 and comprising the similar

and parallel plates 11, with a spacing-strip 12 therebetween, which for economy may be of wood and secured together in any approved means, as by the rivets 13. At one end the plates 11 are extended beyond the spacing-strip 12 and made wider, as at 14. Between the wide ends 14 is pivoted a bar or member 15, as by the pin 16, and extending normally substantially parallel with the handle 10 and having its end opposite the pivot 16, formed into a work-engaging-jaw 17. Upon opposite sides of the lever 15 are secured hinge-strips 18, as by the pin 19, and between their other ends is pivoted a bar or member 20 by the pin 21 and disposed normally substantially parallel with the lever 15. At the end adjacent the strips 18 the bar 20 is provided with a work-engaging jaw 22, mounted in opposed relation to the jaw 17. At the end opposite the jaw 22 the bar is disposed between the plates 11 and has a slot 23 formed longitudinally thereof. Through the plates 11 and through the slot 23 is extended the rivet 24.

With the parts disposed normally, as in Fig. 1, the opposing jaws 17 and 22 are proportioned to slip freely over the nut upon which the wrench is intended to operate. A movement of the wrench in the direction indicated by the arrow will be opposed by the nut, and the handle will move angularly about the pivot 16, thus forcing apart the bars 15 and 20 and gripping the nut, as indicated in Fig. 2. It is obvious that by turning the wrench it will operate to grip and turn the nut in either direction.

Having thus described the invention, what is claimed is—

1. In a wrench, parallel bars pivotally connected and continued by work-engaging jaws, handle-plates embracing the ends of the bars and pivoted to one of them and a pin through the plates and through a slot in the other bar.

2. A wrench comprising a handle embodying spaced parallel plates, a bar pivoted at one end between the plates and having a work-engaging jaw at its other end, another bar disposed parallel with the first bar and having a longitudinal slot between the plates and an opposed work-engaging jaw at the other end, means pivotally connecting the bars adjacent the jaws and a pin extending through the plates and the slot and so ar-



ranged that a movement of the handle relative to the bars separates the bars.

3. A wrench comprising two bars or members pivotally connected between their ends, one of the bars or members being provided at its inner portion with a longitudinal slot, an operating-lever embodying two plates having enlarged ends embracing the inner ends of the bars, said operating-lever being provided at one side with a pivot arranged in said slot, the other bar or member being pivoted to the opposite side of the operating-lever.

4. A wrench comprising two bars or members pivotally connected between their ends, one of the bars or members being provided at its inner portion with a longitudinal slot, an operating-lever composed of two side plates having enlarged end sections embracing the inner ends of the bars or members and having pivot-pins therethrough adjacent opposite sides, one of the pivots being arranged in said slot and the other pivot-pin connecting the inner end of the other bar or member.

5. A wrench comprising pivotally - connected parallel bars lying in the same plane continued by opposed work-engaging jaws and one of said bars having a longitudinal slot therethrough, spaced handle-plates having broadened ends embracing the ends of the bars, a pivot-pin through one side of the

plates and one bar and a pin through the other side of the plates and through the slot.

6. A wrench comprising pivotally - connected parallel bars continued by opposed work-engaging jaws and one of said bars having a longitudinal slot therethrough, a handle having spaced plates clamped upon opposite sides and with broadened parallel ends extending beyond the handle and embracing the bars, a pivot-pin through one side of the plates and one bar and a pin through the other side of the plates and through the slot.

7. A wrench comprising normally parallel bars continued by opposed work-engaging jaws and one of the bars having a longitudinal slot therethrough and the other a pivot-opening, strips disposed adjacent the jaws and pivotally connecting the bars, a handle embodying spaced plates embracing the bars, a pin through one side of the plates and the pivot-opening of the bar and a pin through the opposite side of the plates and through the longitudinal slot.

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

LA FAYETTE T. WEVER.

Witnesses:

J. M. TOWLES,  
A. A. WEVER.