



# UNITED STATES PATENT OFFICE.

WILLIAM E. PUGSLEY, OF LINCOLN, NEBRASKA, ASSIGNOR OF ONE-HALF TO  
DAVID FITZGERALD, OF SAME PLACE.

## WRENCH.

SPECIFICATION forming part of Letters Patent No. 527,156, dated October 9, 1894.

Application filed February 21, 1894. Serial No. 501,007. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM E. PUGSLEY, a citizen of the United States, and a resident of Lincoln, in the county of Lancaster, and in the State of Nebraska, have invented certain new and useful Improvements in Wrenches; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention has for its object to provide a simple, strong and economical wrench capable of ready adjustment to fit nuts and other devices of various diameter.

To this end the said invention consists in certain peculiarities of construction and combination of parts hereinafter described with reference to the accompanying drawings and subsequently claimed.

In the drawings: Figure 1 represents a side elevation of my improved wrench partly broken away; Fig. 2, a section of the same taken on line 2—2 of the preceding figure, and Fig. 3 a perspective view of the lower wrench-jaw.

Referring by letter to the drawings, A represents a straight handle-bar of suitable metal, having its forward end curved upon the under side and offset to form an abrupt shoulder *b*, this offset portion of the handle bar constituting the lower jaw B of my improved wrench.

Intermediate of its extremities the handle-bar A is provided with a concave socket for the half-round terminal *c* of the shank portion *d* of an upper jaw C that is offset to form an abrupt shoulder *e*, curved upon its upper side and transversely serrated upon its lower side. A pivot *f* connects the half-round end of the upper jaw-shank with a clip D bolted or otherwise rigidly secured to the handle-bar. Loose on the handle-bar and upper jaw-shank is a collar E and fast in this collar between said bar and shank is a wedge-block F, the inclined face of the latter being uppermost. By a movement of the collar the spread of the jaws B, C, is regulated, and the forward movement of said collar is limited by the shoulders *b*, *e*, of said shoulder.

The opposing faces of the upper jaw-shank and the collar E may be provided with engaging serrations whereby they will automatically lock together and prevent rear movement of said collar and wedge-block when the wrench

is under strain, and I may also employ a set screw G to positively lock the aforesaid collar and wedge-block in adjusted position. I also prefer to provide the lower jaw B with longitudinal flutes, as shown in Fig. 3, in order to improve the grip of the wrench.

From the foregoing description it will be seen that I provide a very simple wrench having its greatest strength where it comes upon a nut, pipe or other device to be turned the spread of the jaws to accommodate said wrench to devices of varying diameter being easily effected by a movement of the collar having the wedge-block fast therein.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A wrench comprising a handle-bar having one end in the form of a jaw, another jaw having a shank pivotally connected to the handle-bar, a collar loose on the handle-bar and jaw-shank, and a wedge-block fast in the collar between said handle-bar and jaw-shank, substantially as set forth.

2. A wrench comprising a handle-bar having one end in the form of a jaw and provided intermediate of its extremities with a concave socket, another jaw provided with a shank having a half-round terminal engaging the handle-bar socket, a clip fast on said handle-bar, a pivot connecting said jaw-shank terminal with the clip, and a sliding device that regulates the spread of the jaws, substantially as set forth.

3. A wrench comprising a handle-bar having one end in the form of a jaw, another jaw having a shank pivotally connected to the handle-bar, a collar loose on the handle-bar and jaw-shank, a wedge-block fast in the collar between said handle-bar and jaw-shank, and a set-screw for locking the collar in adjusted position, substantially as set forth.

4. A wrench comprising a handle-bar having one end in the form of a jaw another jaw having a serrated shank pivotally connected to the handle-bar, a serrated collar loose on the handle-bar and jaw-shank, and a wedge-block fast in the collar between said handle-bar and jaw-shank, substantially as set forth.

5. A wrench comprising a handle-bar having one end in the form of a jaw provided

upon its working face with longitudinal flutes,  
 another jaw having a shank pivotally con-  
 nected to the handle-bar, a collar loose on the  
 handle bar and jaw-shank, and a wedge-block  
 5 fast in the collar between said handle-bar and  
 jaw-shank, substantially as set forth.

6. A wrench comprising a handle-bar hav-  
 ing one end in the form of a jaw provided  
 upon its working face with longitudinal flutes,  
 10 another jaw having a transversely serrated  
 working face and a shank pivotally connected  
 to the handle-bar, a collar loose on the handle-

bar and jaw-shank, and a wedge-block fast in  
 the collar between said handle-bar and jaw-  
 shank, substantially as set forth.

In testimony that I claim the foregoing I  
 have hereunto set my hand, at Lincoln, in the  
 county of Lancaster and State of Nebraska,  
 in the presence of two witnesses.

WILLIAM E. PUGSLEY.

Witnesses:

THOS. E. KELLY,  
 WM. B. KIRBY.