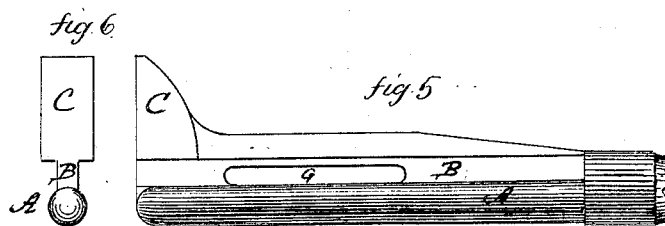
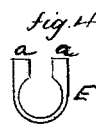
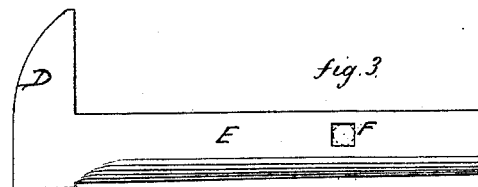
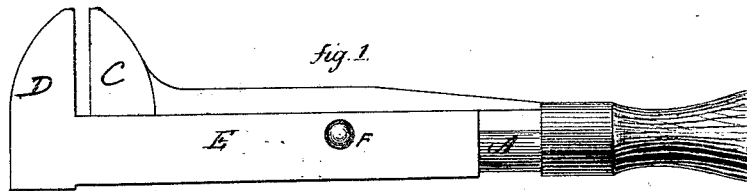


F. B. MORSE.  
Improvement in Wrenches.

No. 114,179.

Patented April 25, 1871.



Witnesses  
John H. Shumway  
A. J. Lickota

Francis B. Morse  
Inventor  
By his Atty.  
John S. Earle

# United States Patent Office.

FRANCIS B. MORSE, OF PLANTSVILLE, CONNECTICUT, ASSIGNOR TO H. D. SMITH & CO., OF SAME PLACE.

Letters Patent No. 114,179, dated April 25, 1871.

## IMPROVEMENT IN WRENCHES.

The Schedule referred to in these Letters Patent and making part of the same.

*To all whom it may concern :*

Be it known that I, FRANCIS B. MORSE, of Plantsville, in the county of Hartford and State of Connecticut, have invented a new Improvement in Wrenches; and I do hereby declare the following, when taken in connection with the accompanying drawing and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawing constitutes part of this specification, and represents in—

Figure 1, a side view;  
Figure 2, a top view;  
Figure 3, the movable jaw detached;  
Figure 4, an end view of the same;  
Figure 5, a detached view of the fixed jaw and bar;  
and in

Figure 6, an end view of the same.

This invention relates to an improvement in that class of wrenches commonly known as "monkey-wrenches," the object being to avoid the use of the common adjusting-screw, and to set the wrench at any desirable position; and

The invention consists in forming the bar and fixed jaw in one and the same piece, the bar being of cylindrical or similar form, and the movable jaw constructed to pass freely onto the said cylindrical portion of the bar, and be clamped thereon in any desired position by a bolt passing transversely through the two sides of the movable jaw-arm.

A is the bar of the wrench, shown in fig. 5, fixed to the handle in the usual manner for other wrenches, the part A, of cylindrical or other suitable form, contracted into a web, B, to which web portion the jaw C is fixed.

D is the movable jaw, constructed with a sleeve, E, formed as seen in fig. 4, so as to pass freely onto the cylindrical portion A of the bar, and its upper edge onto the web B.

Transversely through the sleeve E I arrange a bolt, F, the said bolt passing through a slot, G, in the web, and provided with a lever or other suitable nut, L, upon the opposite side, so that by turning the said lever, the two sides *a a* being drawn together, the sleeve is tightly clamped on the bar with sufficient force to hold the sleeve and movable jaw in any desired position.

The web or bar may be made slightly tapering, diminishing toward the handle, which would tend to more perfectly secure the sleeve, but this is not essential.

In using the wrench the person taking the wrench in one hand may with the thumb of that hand turn the lever L and move the sleeve until the desired adjustment is attained, then, returning the lever, secure the movable jaw in that position.

By this construction the nicest adjustment may be attained, and that much more quickly than by the common screw, and without the inconvenience of the unavoidable play of the thread of the screw; and the construction of the wrench is of such a nature that it may be entirely formed in dies, so that very little, if any, finishing will be required; and the great depth which is given to the bar greatly increases the strength, and thus I produce a better, stronger, and cheaper wrench than has heretofore been done.

I claim as my invention—

The cylindrical bar A, provided with a flat or web portion, B, and fixed jaw C, in combination with the movable jaw D, divided sleeve E, and clamping device, constructed and arranged to operate substantially as specified.

F. B. MORSE.

Witnesses:

A. J. TIBBITS,  
JOHN H. SHUMWAY.