

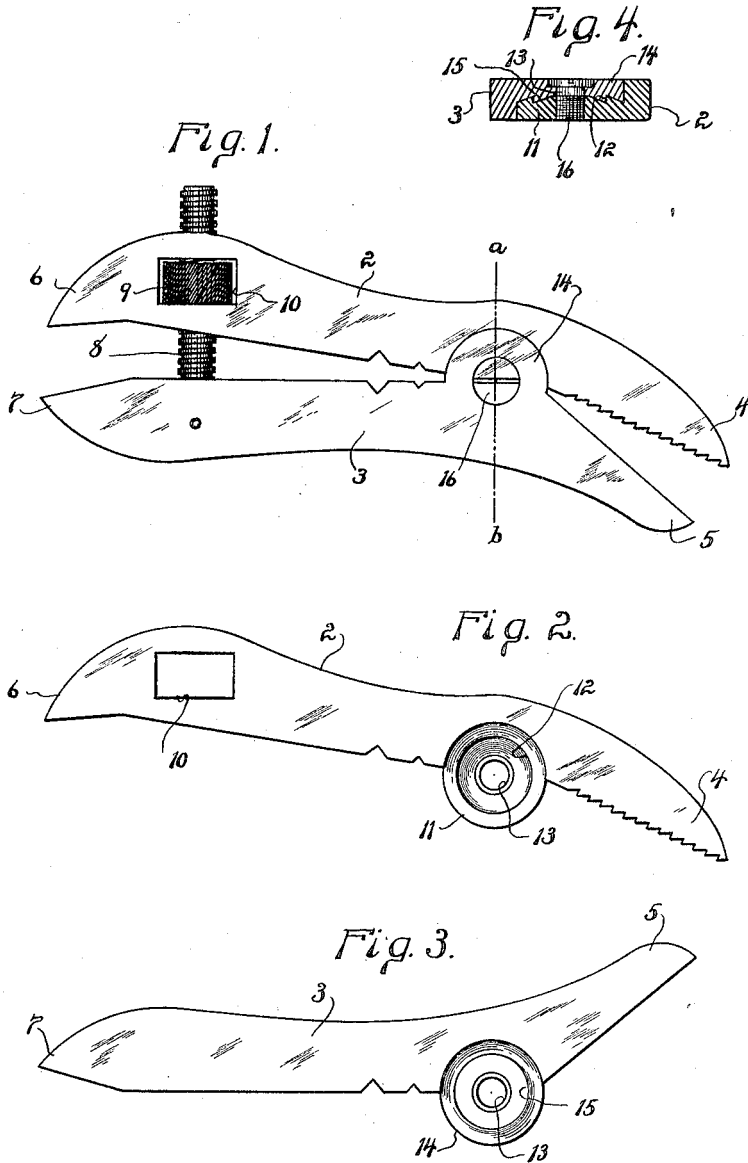
J. ANDERSON.

WRENCH.

APPLICATION FILED AUG. 5, 1912.

1,070,656.

Patented Aug. 19, 1913.



Witnesses  
William G. Johnson  
Clara L. Reed

John Anderson  
Inventor  
Augustus B. Reed  
Atty.

# UNITED STATES PATENT OFFICE.

JOHN ANDERSON, OF PORTLAND, CONNECTICUT.

## WRENCH.

1,070,656.

Specification of Letters Patent.

Patented Aug. 19, 1913.

Application filed August 5, 1912. Serial No. 713,457.

To all whom it may concern:

Be it known that I, JOHN ANDERSON, a citizen of the United States, residing at Portland, in the county of Middlesex and State of Connecticut, have invented a new and useful Improvement in Wrenches; and I do hereby declare the following, when taken in connection with the accompanying drawings and the characters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this application, and represent, in—

Figure 1 a plan view of a wrench constructed in accordance with my invention. Fig. 2 a plan view of one of the members, detached. Fig. 3 a similar view of the other member. Fig. 4 a sectional view on the line *a—b* of Fig. 1.

This invention relates to an improvement in wrenches, and particularly to wrenches comprising two similar members each having a circular knuckle one-half of which projects inward from the inner edge of the members through which knuckles a screw passes for pivotally connecting the members together, the object of the invention being to so form the knuckles that the strain and wear is entirely removed from the screw, coupling the members together; and the invention consists in the construction hereinafter described and particularly recited in the claim.

In illustrating my invention, I have shown a wrench like that shown in my application filed February 9, 1912, Serial No. 676,596. As herein shown, the wrench comprises two members 2, 3, provided at opposite ends with jaws 4, 5, 6 and 7, a screw 8

connected with one member and passing through a nut 9 located in a clearance opening 10 formed in the other member and by which the jaws may be adjusted. The member 2 is formed with an integral knuckle 11 one-half of which projects inward from the inner edge of the member and is about half the thickness of the member. In the face of this knuckle is a beveled annular seat 12 surrounding the screw opening 13. The other member 3 is also provided with a similar knuckle 14 provided with a beveled annular rib or projection 15 adapted to enter the seat 12 formed in the other member. The parts are connected together by a screw 16 passing through the two knuckles, but owing to the fact that one knuckle is provided with a seat and the other with a rib, the strain upon the screw is entirely removed, and the only function is to hold the two parts in proper relative position, the hinge being formed by the said annular rib and seat and by beveling the face of the seat and the face of the rib, the stock is equally divided between the two members and the strain is equalized.

I claim:—

A wrench having two members each when assembled having annular interengaging projections and grooves which contact throughout their opposite faces and a screw holding the same in pivotal connection.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

JOHN ANDERSON.

Witnesses:

CHARLES B. BROMLEY,  
FREDERIC C. EARLE.