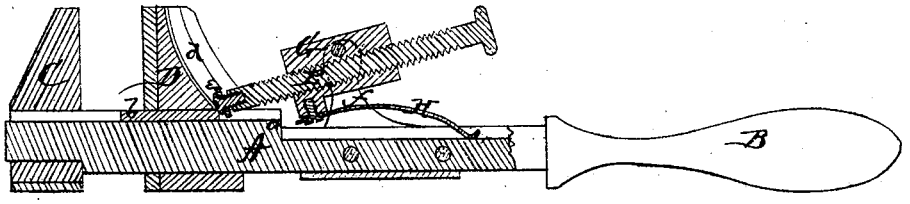
JOSEPH N. NEWELL.

Improvement in Wrenches.

No. 114,703. Patented May 9, 1871.



Witnesses.

J. E. Hutchinson

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UNITED STATES PATENT OFFICE.

JOSEPH N. NEWELL, OF ADRIAN, MICHIGAN.

IMPROVEMENT IN WRENCHES.

Specification forming part of Letters Patent No. **114,703**, dated May 9, 1871; antedated April 29, 1871.

To all whom it may concern:

Be it known that I, JOSEPH N. NEWELL, of Adrian, in the county of Lenawee, and in the State of Michigan, 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, reference being had to the accompanying drawing, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of a wrench, as will be hereinafter fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, which represents a longitudinal vertical section of my wrench.

A represents the stem of the wrench, provided at one end with the handle B and at the other with the stationary jaw C. The upper side of the stem A is provided with an offset at *a*, making the outer end or the portion where the sliding jaw D moves thicker than the remainder of the stem. The entire upper surface of the stem A is made concave or provided with a semicircular groove running lengthwise from end to end of the stem.

The sliding jaw D is provided with a lip or tongue, *b*, which fits in the concavity of the stem and extends in front of said jaw, so as to form a flat surface on the upper side of the stem between the jaws. The rear side of the sliding jaw D is shaped as shown in the drawing, and provided with a curved T-shaped groove, *d*, in which is placed a small flattened roller, *e*, upon the front end of a long screw, E. This screw E passes through a block, G, pivoted between two ears, *f*, above the stem, said ears being attached in any suitable manner to the stem at a convenient point between the offset *a* and the handle B.

To the under side of the block G, at the front end, is attached a spring, H, which extends toward the handle between the ears *f f*, and its rear end resting in the groove or concavity on the stem. The action of this spring is to throw the front end of the screw downward, which has the effect of moving the sliding jaw toward the stationary one as the roller *e* upon the end of the screw moves in the curved groove on said sliding jaw.

By pressing down upon the knob at the rear end of the screw E the sliding jaw is moved away from the other. The sliding jaw must of course first be set nearly to the distance required by turning the screw E.

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

1. The sliding jaw D, provided with the lip or tongue *b* and the curved T-shaped groove *d*, substantially as and for the purposes herein set forth.

2. The screw E, passing through the pivoted block G and provided on its front end with the roller *e*, substantially as and for the purposes herein set forth.

3. In combination with the pivoted block G and screw E, the spring H, arranged to operate substantially as and for the purposes herein set forth.

4. The combination of the stem A with handle B and stationary jaw C, the sliding jaw D, screw E, block G, and spring H, all constructed and arranged substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 4th day of October, 1870.

JOSEPH N. NEWELL.

Witnesses:

FRANK HARWOOD,

C. B. JOHNSON.