W. Kearney,

Wrench.

No. 30,579. Patented Nov. 6, 1860.

Fig. 1.

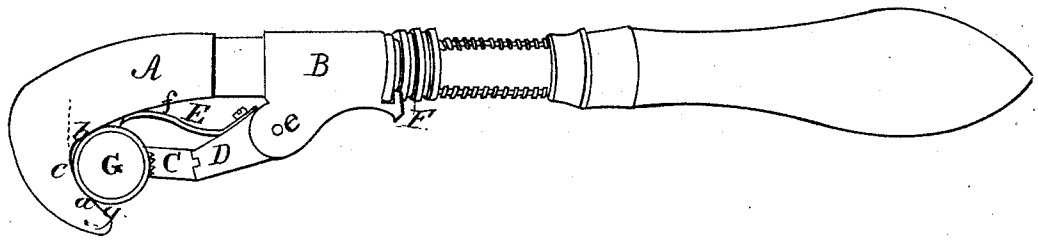


Fig. 4.

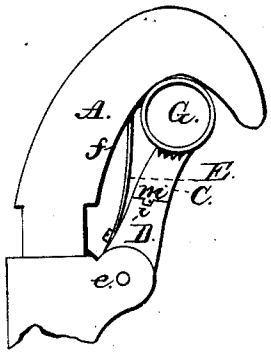


Fig. 3.

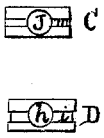
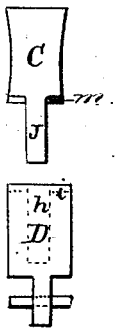


Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM KEARNEY, OF UNION, NEW JERSEY.

WRENCH.

Specification of Letters Patent No. 30,579, dated November 6, 1860.

To all whom it may concern:

Be it known that I, WILLIAM KEARNEY, of the town of Union, in the county of Hudson and State of New Jersey, have invented certain Improvements in Wrenches for Pipes and Stud-Bolts; and I do declare the following to be a full and exact description of the same, reference being herein had to the drawings, which accompany this specification and make part of the same.

The nature of my invention consists, in giving facility and certainty to the operation of the wrench by means of a jaw of a peculiar construction and arrangement.

In the drawings where the same letters refer to the same parts in each figure, Figure 1 is a perspective view of the complete wrench; Fig. 2 shows the joint in the middle of the length of the jaw; Fig. 3, an end view of each piece of the jaw; Fig. 4, the position of the jaw on the work when the upper joint is reversed.

In the drawings A shows the main body of the wrench, B the slide, having on it the rule joint foot, of the jointed jaw C, D.

F is the main screw nut and G the pipe or stud bolt.

The object in forming the jaw in two pieces is that of enabling the operator to reverse the action of the wrench when in close quarters. The motion which tightens the hold on the pipe or bolt when the piece, C, stands in the position shown in Fig. 1, loosens it when the piece C is in the position shown in Fig. 4, and vice versa.

The joint in the length of the jaw is made by having a pin *j* on the lower end of the piece C which fits in a socket, *h*, in the foot piece D. Lengthwise of the face of the top of foot piece D, is a groove *i*, Fig. 3, into which a corresponding tongue *m* on the lower end of the jaw piece C is made to fit, to hold the piece C from turning when it is changed in its positions.

The spring on the back of the foot piece D of the jaw allows the jaw to admit the pipe it is to hold without moving the main slide B, and the inside of the body of the wrench forms an inclosed plane which makes less range of motion for the spring and makes the strain thereon more even in its action on different sized pipes or bolts than could be otherwise had.

What I claim as my improvement and desire to secure by Letters Patent is—

The jointed jaw, C, D, with its rule joint foot when combined with the spring E and the inclined plane *f*, and constructed substantially in the manner and for the purpose hereinabove set forth.

WILLIAM KEARNEY.

Witnesses:

W. M. GOODING,

J. L. JONES.