

(No Model.)

A. J. CURTIS
PIPE WRENCH.

No. 425,371.

Patented Apr. 8, 1890.

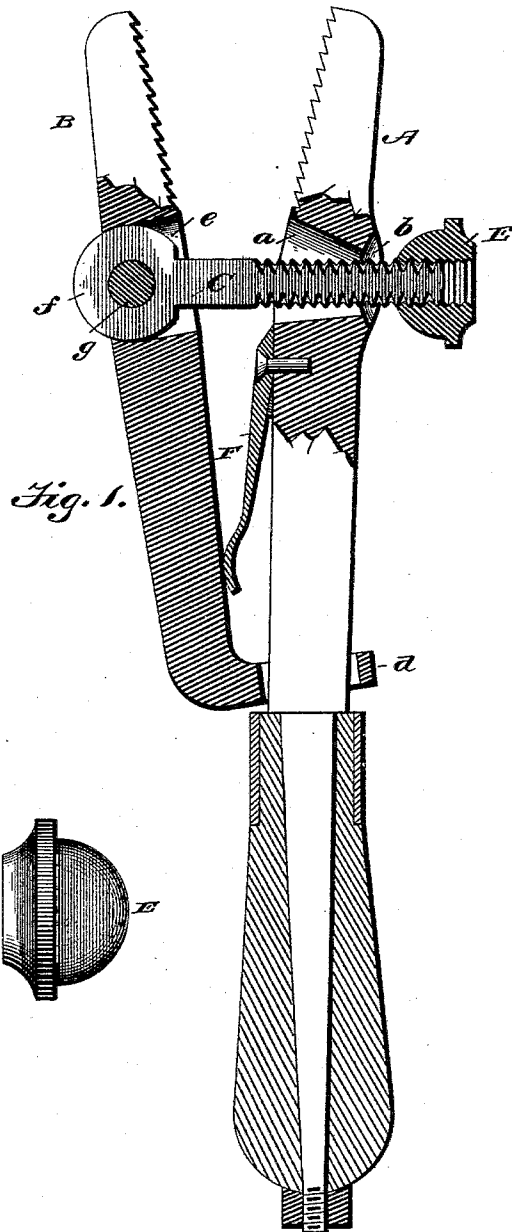


Fig. 2.

Witnesses:

D. A. Tashiro
J. E. Turpin

Inventor:

Andrew J. Curtis.

By *Smith & Shulby*
Attorneys

UNITED STATES PATENT OFFICE.

ANDREW J. CURTIS, OF MONROE, ASSIGNOR OF ONE-HALF TO JOHN H. GORDON, OF BROOKS, MAINE.

PIPE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 425,371, dated April 8, 1890.

Application filed March 5, 1889. Serial No. 301,966. (No model.)

To all whom it may concern:

Be it known that I, ANDREW J. CURTIS, a citizen of the United States, residing at Monroe, in the county of Waldo and State of Maine, have invented certain new and useful Improvements in Pipe-Wrenches; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it

appertains to make and use the same.

This invention relates to an improvement in wrenches, and is more particularly adapted for use as a pipe-wrench.

The novelty will be fully understood from the following description and claims when taken in connection with the accompanying drawings, in which—

Figure 1 is a longitudinal sectional view of my improved wrench with the jaws fully opened, and Fig. 2 is a view of the convex nut removed.

Referring by letter to the said drawings, A indicates the fixed or rigid jaw, which is provided with the shank, carrying at its inner end a suitable handle, as shown. This jaw is provided at the base of its toothed or serrated portion with a slot or aperture *a*. This aperture is of a tapering or flaring form, and its outer reduced end terminates in a concave or countersink *b*, to receive and seat a portion of the convex nut, as will be presently explained.

B indicates a sliding jaw, which is provided at its inner end with a loop *d*, which receives or is placed over the plain portion of the jaw A. This jaw B is also provided at a point opposite the slot in the jaw A with a similar slot *e*.

C indicates a lever or rod, which is threaded at one end and provided with an eye *f* in its opposite end. This lever C is pivoted by means of a bolt *g* in the slot *e* of the jaw B, so that it may be allowed a play therein and permit of the said jaw sliding with relation to the jaw A. The threaded portion of this lever C passes through the flaring aperture *a* in the jaw A, and receives on its outer end a convex nut E, which is adapted when screwed upon the said threaded lever to seat itself in the concave bearing *b* of the jaw A,

and thus hold the jaws in position upon a pipe or other device to be turned.

In practice I secure one end of a spring—such as F—to the jaw A, so that the opposite end thereof will bear against the inner side of the jaw B, so as to normally hold the same open. When the wrench is set firmly upon a pipe and the handle moved in one direction, the loose jaw moves forward and the jaws brought together by the action of the eccentric joint, the grip of the jaws being in proportion to the force applied to the handle, and the jaws may be instantly released from the pipe or article by removing the handle back or in the opposite direction.

It has heretofore been proposed to use a sliding jaw arranged upon the shank of a fixed jaw and connect both jaws by a link or arm, the link having a series of perforations, and each jaw having an aperture to receive pins passed through the apertures of the link, so that the jaws may be set for pipes of different sizes; but such construction has been found objectionable, as it is very inconvenient to remove the pin from the connecting-arm and set it for the space desired, and it is furthermore objectionable inasmuch as only a given space or adjustment can be had. By my construction and the employment of the flaring slots in the jaws the threaded rod or lever and the conical nut it will be seen that a quick and accurate adjustment of the jaws may be had by simply manipulating the nut, and the flaring slots will permit the jaws being moved longitudinally with respect to each other.

Having described my invention, what I claim is—

1. A pipe-wrench having a rigid jaw provided with a flaring slot or aperture, in combination with a sliding jaw having a similar slot, a lever pivoted in the slot of the sliding jaw and passing through the slot of the rigid jaw, and a nut for adjustably securing the same, substantially as specified.

2. The pipe-wrench described, consisting, essentially, of the rigid jaw having a tapering slot and a conical seat at the reduced end of said slot, the movable jaw having an eye to receive the rigid jaw and also having a slot,

the pivoted connecting-lever having one end pivoted in the slot of the movable jaw and its opposite threaded end passing through the slot of a rigid jaw, the convex nut for
5 adjustably securing the jaws to a lever, and the spring for expanding the jaws, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

ANDREW J. CURTIS.

Witnesses:

F. M. LAUGHTON,
JOHN R. MASON.