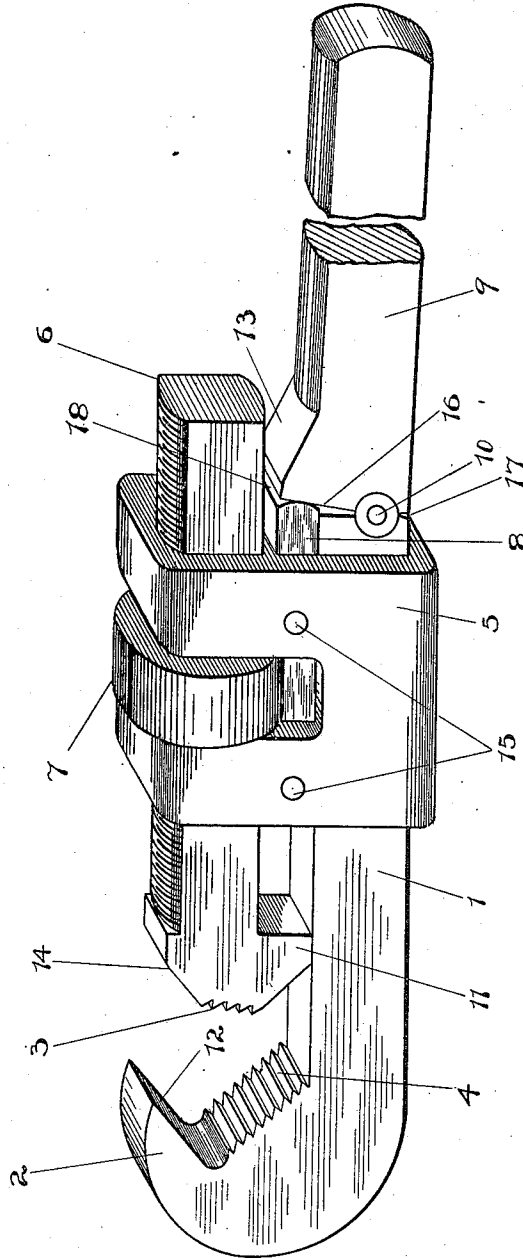


E. K. JONES.
PIPE WRENCH.
APPLICATION FILED OCT. 1, 1912.

1,060,685.

Patented May 6, 1913.



WITNESSES:
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UNITED STATES PATENT OFFICE.

ELIHU K. JONES, OF PORTLAND, OREGON.

PIPE-WRENCH.

1,060,685.

Specification of Letters Patent.

Patented May 6, 1913.

Application filed October 1, 1912. Serial No. 723,346.

To all whom it may concern:

Be it known that I, ELIHU K. JONES, a citizen of the United States, residing at Portland, in the county of Multnomah and State of Oregon, have invented certain new and useful Improvements in Pipe-Wrenches, of which the following is a specification.

This invention relates to an improvement in pipe wrenches, and has for its object to provide a wrench which is especially designed to increase its grip upon the pipe as the pressure is applied thereon in turning it.

A further object is to provide a means for limiting the increase of the pressure upon the pipe and for an easy and ready release of the wrench from the pipe in the back movement.

I accomplish these objects by the mechanism illustrated in the accompanying drawing, in which the figure shows a perspective view of the wrench in detail, illustrating its construction and operation.

Referring to the drawing in detail, 1 represents the body of the relatively fixed member of the wrench, the outer portion of which rises and is recurved to form the pipe-engaging terminal 2. The inner face of the rising portion is formed at an obtuse angle with reference to the base or member 1, and is extended to a suitable height to conveniently engage upon the pipes upon which it is to be employed.

The rear portion 12 of this face is formed at right angles to the portion 4 and therefore, at an acute angle with reference to the base 1, so that as a pipe is forced into the right angled portion the tendency will be to force it backwardly against the pressure from the movable member.

Upon the member 1 is fixed a strap or yoke 5, within which is secured the reciprocating member 6 provided with an inclined face 14 at the outer and front end conforming to the face 12 and having formed across the front end the teeth 3, the series inclining inwardly from the rear, so that as the wrench is turned upon the pipe there will be an increase in the tension.

Back of the member 6 is formed a bar 8, which may be formed integrally on the yoke or it may be secured thereto by means of the pins 15. The rear end of this bar projects a short distance beyond the terminal of mem-

ber 1 and is rounded as at 18. To the inner side of the member 6, at the outer end is formed an extension 11 equal in height to the thickness of the bar 8, which is adapted to move upon the front face of member 1 to sustain the reciprocating member.

On the inner end of the member 1 is formed a suitable bracket to carry the pin 10 upon which is secured the operating handle 9, the outer end of which is formed in a plane at right angles to its length, and upon the front portion is formed an extension adapted to bear against the projecting terminal 18 of the bar 8.

The rear portion of the inner end of member 1, below the pivot pin 10, is formed at an angle as at 17 so as to allow a short movement of the handle 9 on its point of support.

In its normal position the handle will stand against the portion 17, bearing also against the end 18 of the bar 8; and when the member 6 is tightened upon the pipe by means of the thumb nut 7, mounted in the usual manner upon the member 6 within a slot of the yoke 5, the application of stress upon the handle will further tighten the jaw 6 upon the pipe to cause the teeth 3 and 4 of the respective members to firmly engage therein. The end 18 of the bar 8 is rounded to facilitate the movement of the handle 9.

It will be observed that only a short movement of the bar 8 will be made until the face 16 of the handle will bear against the upper portion of the end of member 1, thereby limiting the tightening movement of the jaws upon the pipe and making it impossible for them to crush it.

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

A pipe wrench comprising a fixed member having a recurved pipe-engaging portion whose inner face stands at an acute angle with reference to the body thereof, and whose inner end is formed at right angles thereto and is beveled at the rear side, a member mounted on the fixed member and adapted to be moved into engagement with a pipe, the engaging end thereof being extended to form a bearing to slide upon the fixed member and so shaped that as the wrench is manipulated its pressure upon the

pipe will be increased, a bar conforming in
thickness to said extended portion, secured
to the movable member and projecting in-
wardly to the plane of said beveled end por-
5 tion and a handle hinged at the front side
of the beveled portion, so as to bear thereon
and upon said projecting bar, whereby, by
the manipulation of the handle, the jaws

will further close till said handle engages
the right angularly formed end portion. 10

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

ELIHU K. JONES.

Witnesses:

G. B. NISSEN,

HAZEL A. ARMSTRONG.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
