

W. N. FESSENDEN.
PIPE WRENCH.
APPLICATION FILED DEC. 9, 1912.

1,057,816.

Patented Apr. 1, 1913.

FIG. 1.

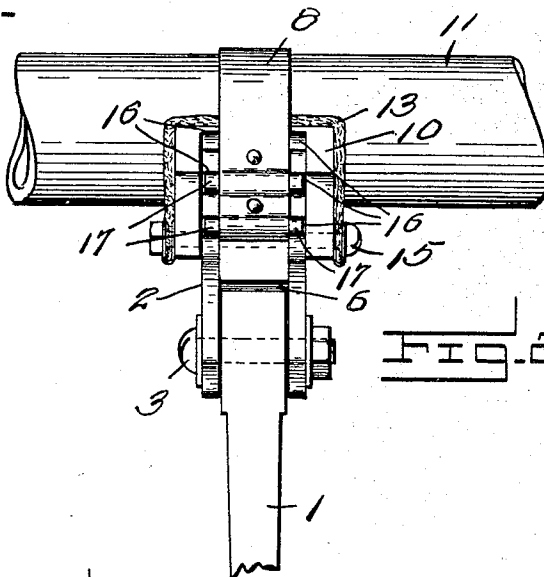
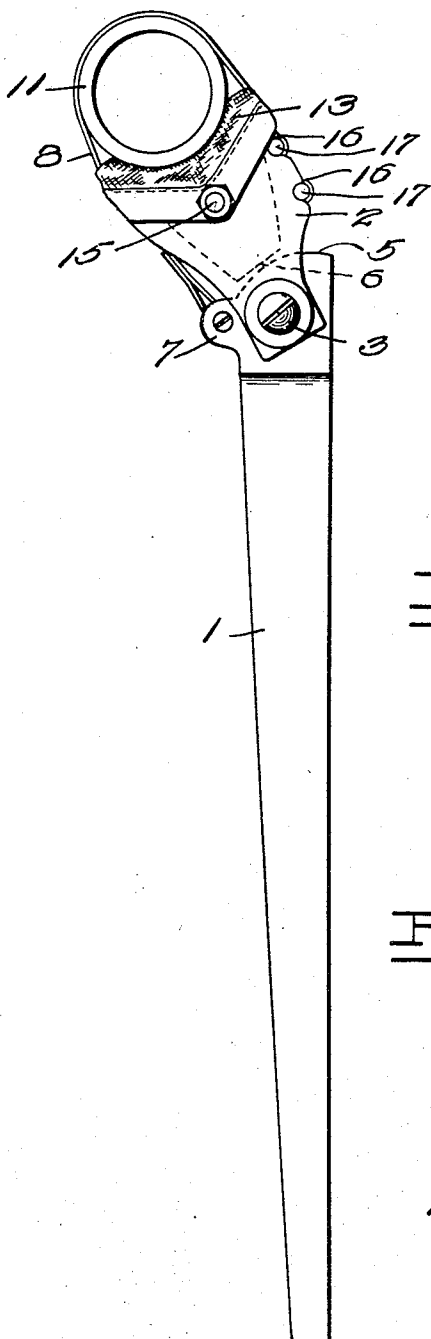


FIG. 2.

FIG. 3.

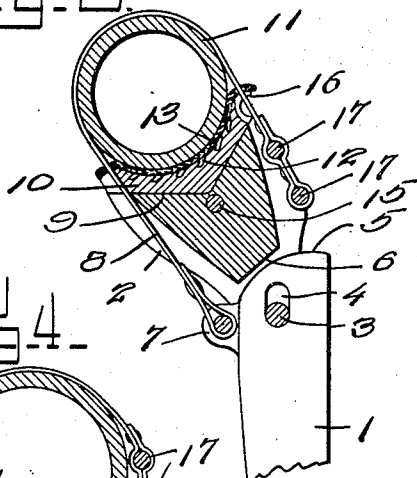
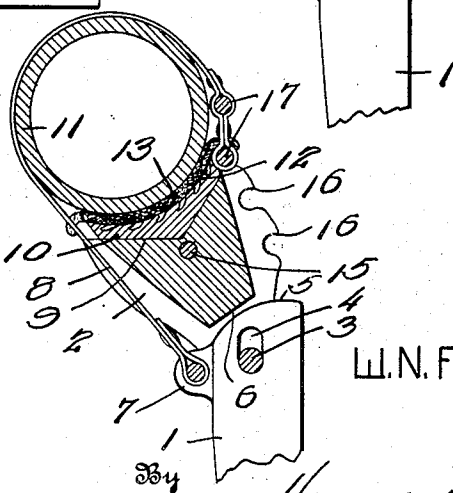


FIG. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

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PIPE-WRENCH.

1,057,816.

Specification of Letters Patent.

Patented Apr. 1, 1913.

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To all whom it may concern:

Be it known that I, WILLIAM N. FESSENDEN, a citizen of the United States, residing at Kingston, in the county of Ulster and State of New York, have invented new and useful Improvements in Pipe-Wrenches, of which the following is a specification.

My invention relates to pipe-wrenches, and consists more particularly in certain improvements by means of which I provide a very efficient and convenient wrench, especially adapted for plumbers' use on polished pipes, the surfaces of which must not be marred by the wrench.

The construction of the wrench and the features which I believe to be novel are illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the device; Fig. 2 is a rear view of the same, the lower part of the handle being broken away; Fig. 3 is a central vertical section, and Fig. 4 a view similar to Fig. 1, but showing a jaw adapted to fit larger sizes of pipes, substituted for the smaller size.

In these views, 1 represents the handle and 2 the head of the wrench, which is pivoted on the handle by the bolt 3 passing through a slot 4 in the handle, so as to permit of a slight play or relative longitudinal movement between the said parts in the operation of the wrench. The outer end of the handle is formed into a curved eccentric surface 5, which bears against a co-operating surface 6 on the head. On the front side of the handle are formed a pair of ears 7, between which is pivoted one end of a flat band or strip 8, preferably made of thin spring steel. The outer end of the head 2 is recessed, either in V-shape as shown at 9 or in a concave curve, and a shoe or jaw 10 is fitted into said recess. The face of the jaw is shaped to fit against a pipe 11, being preferably concave and serrated as shown at 12. A pad 13, of some textile material such as webbing, is mounted on the face of the jaw, both the pad and jaw being secured to the head by a transverse bolt 15. On the back side of the head are formed a plurality of recesses, notches or hooks 16, with which the other end of the strip or band 8 is adapted to be engaged after having been passed around the pipe. For this

purpose and to allow of adjustment for different sizes of pipe, the free end of the band 8 carries a pair of cross-pins 17. To further accommodate pipes of different diameters, the shoe or jaw 10 is made interchangeable with others, the concave recesses in the faces of which are of larger size, as shown in Fig. 4. Thus, by providing a set of several jaws with each handle and head and, if desired, also one or more bands 8 of different lengths, the wrench is adapted for a considerable variety of work.

The mode of operation of the wrench will be obvious. After the band has been placed around a pipe and engaged with the head by one of its cross-pins, the handle is swung in one direction to cause the pipe to be firmly clamped between the band and padded jaw, by the camming action of the surfaces 5 and 6, and in the other direction to loosen the grip on the pipe and permit the wrench to be shifted around preparatory to taking a fresh grip.

While I have illustrated and described the preferred form, it will be obvious that certain modifications may be made in the construction of the wrench, without departing from the spirit of my invention. For example, the band 8 might be pivoted on the head 2 and adjustably engage the handle with its free end instead of, as shown, being pivoted on the handle and adjustably engaging the head with its free end.

Having thus described my invention, what I claim is:—

A pipe-wrench comprising a handle, a recessed head pivoted thereto, a pipe-engaging jaw fitting said recess, a pad extending over the face and ends of said jaw, a bolt passing transversely through the ends of said pad, and through said jaw and head to detachably secure said jaw and pad to said head, and a flexible pipe-encircling member extending from said handle to said head, substantially as shown and described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

WILLIAM N. FESSENDEN.

Witnesses:

JOS. M. FOWLER,
N. H. FESSENDEN.