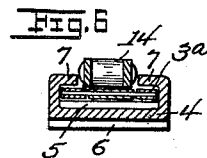
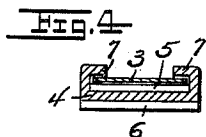
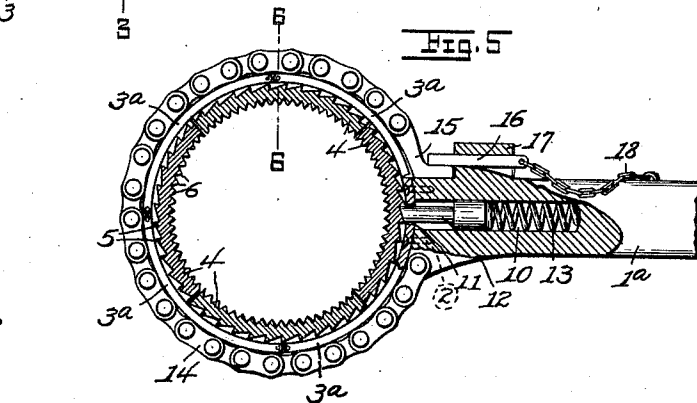
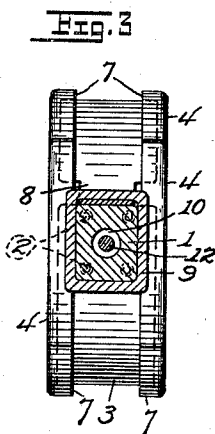
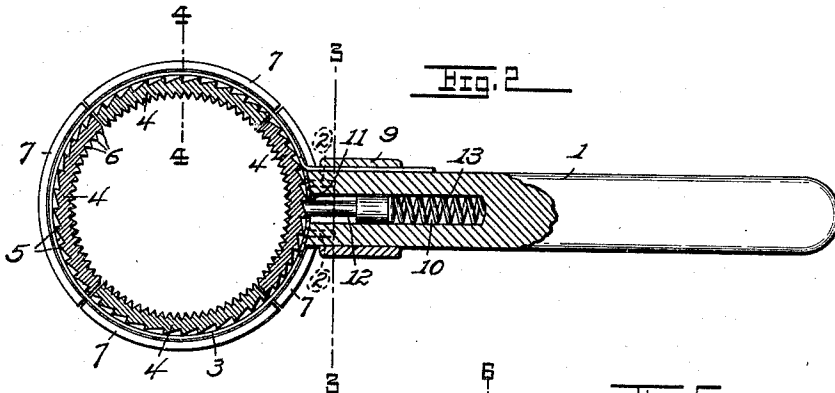
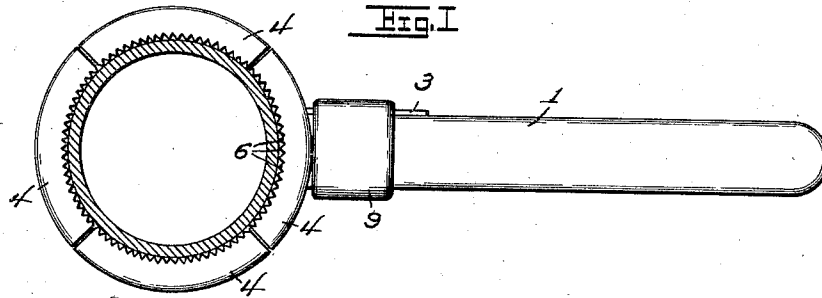


J. J. TAGUE.
PIPE OR TUBING WRENCH.
APPLICATION FILED NOV. 9, 1909.

1,006,024.

Patented Oct. 17, 1911.



WITNESSES:
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JOHN J. TAGUE, OF BELLTON, WEST VIRGINIA.

PIPE OR TUBING WRENCH.

1,006,024.

Specification of Letters Patent.

Patented Oct. 17, 1911.

Application filed November 9, 1909. Serial No. 527,016.

To all whom it may concern:

Be it known that I, JOHN J. TAGUE, a citizen of the United States of America, and resident of Bellton, county of Marshall, and State of West Virginia, have invented certain new and useful Improvements in Pipe or Tubing Wrenches, of which the following is a specification.

This invention relates to improvements in ratchet wrenches, and more particularly to a pipe or tubing wrench of the ratchet type.

The primary object of the invention is to provide a simple, inexpensive and durable ratchet-wrench which is adapted for use on pipe or tubing.

A further object is to provide a wrench of the character mentioned which is adapted for engaging the entire circumference of the pipe to which it is applied.

With these and other objects in view, the invention finally consists in the particular construction, arrangement and combination of parts which will hereinafter be fully described, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a side elevation of the invention, showing a tube gripped thereby; Fig. 2 is a partial longitudinal sectional view of the same; Fig. 3 is a cross-section on the line 3—3, Fig. 2; Fig. 4 is a similar section on the line 4—4, Fig. 2; Fig. 5 is a view similar to Fig. 2, illustrating a slightly modified construction; and—Fig. 6 is a section on the line 6—6, Fig. 5.

Referring to said drawings, in which like reference characters distinguish like parts throughout the several views—1 indicates a handle or stock to the end of which is secured, as by screws 2, one end of a thin flexible metal tongue 3 which has slidably mounted thereon a plurality of toothed slips 4, each being arcuate in form and having transversely disposed ratchet-teeth 5 on its outer face and gripping teeth 6 on its inner face. Each slip has an integral overlying flange 7 on each edge thereof adapted for supporting engagement with the tongue 3. The free end of the tongue is reduced in width, as shown at 8, so that it projects outward between the flanges 7 of the slips, allowing the latter to slide or travel on said tongue without hindrance. Said free end is adapted to be firmly secured in overlying relation with the handle 1 by means of a slidable sleeve 9 carried by said handle, said

sleeve serving to clamp said free end upon said handle. A socket 10 is provided in the inner end of said handle, and slidably held therein, and projected outward through a registering aperture 11 in the fixed end of said tongue 3 is a pawl 12 whose point is adapted to successively engage the teeth 5 as the slips 4 travel upon the tongue 3, said pawl being held in outwardly-thrust position by means of a coil spring 13 seated therebehind in said socket.

Now, as is obvious, when it is desired to apply the wrench to a pipe, the free end of the tongue bearing the slips is carried around the pipe and is drawn up close against the handle, after which the sleeve 9 is moved up over the free end of the tongue to hold the latter firmly in place. Then, using the handle as a lever, the wrench is moved around so as to carry therewith the slips which engage the pipe. Desiring to take a new hold, the handle is withdrawn, or moved rearward. This movement effects a corresponding movement of the tongue 3, causing the latter to slip over the slips 4 without changing the position of the latter with respect to the pipe gripped thereby.

In the modification depicted in Figs. 5 and 6, which illustrates a wrench particularly adapted for heavy work, a tongue composed of pivoted sections 3^a is employed, said tongue being of no greater length than is required for closing upon itself when the wrench is employed on a pipe of the size or gage for which it is designed, as shown in Fig. 5. A chain 14 of a substantially flat type is pivotally connected at one end to the handle, and is then passed around to rest upon the outer surface of the tongue between the flanges 7 of the slips, and has a terminal lug 15, carried by the free end thereof, seated against the side of the handle, as shown. A key 16 projected through a suitable keeper 17 borne by the handle overlies the toe of said lug 15 and serves to rigidly hold the latter against chance displacement. A chain 18 connected to said key 16 and handle 1^a serves to prevent loss or misplacement of the former.

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

1. In a pipe wrench, a handle, a flexible metal tongue having one end fixedly secured to said handle, a plurality of seg-

mental toothed slips, inturned overlying flanges formed integral with said slips, said slips being slidably mounted on said tongue with said flanges in embracing engagement 5 with the latter whereby they are supported both when the tongue is in operative and inoperative positions, said tongue being adapted to bend readily and thus to actuate said slips to conformably engage a pipe 10 embraced thereby, means for holding said tongue in position about a pipe, and a spring-pressed pawl carried by the handle for interlocking engagement with a tooth of a slip when said handle is moved in a forward 15 direction.

2. In a pipe wrench, a handle, a flexible metal tongue having one end fixedly secured to said handle, means for clamping the opposite end of said tongue to said handle, a 20 plurality of segmental toothed slips, inturned overlying flanges formed integral with said slips, said slips being slidably mounted on said tongue with said flanges in embracing engagement with the latter 25 whereby they are supported both when the tongue is clamped and unclamped, said tongue being adapted to bend readily and

thus actuate said slips to conformably engage a pipe embraced thereby, and a spring-pressed pawl carried by the handle for interlocking engagement with a tooth of a slip when said handle is moved in a forward direction. 30

3. In a pipe wrench, a handle, a flexible metal tongue having one end fixedly secured 35 to said handle, a plurality of segmental toothed slips, inturned overlying flanges formed integral with said slips, said slips being slidably mounted on said tongue with said flanges in embracing engagement with 40 the latter whereby they are supported both when the tongue is in operative and inoperative positions, a chain fixed at one end to said handle and adapted to rest upon the outer surface of said tongue between the 45 slip-flanges, and means for attaching the opposite end of said chain to said handle.

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

JOHN J. TAGUE.

Witnesses:

A. M. GARRISON,
W. GOOD.