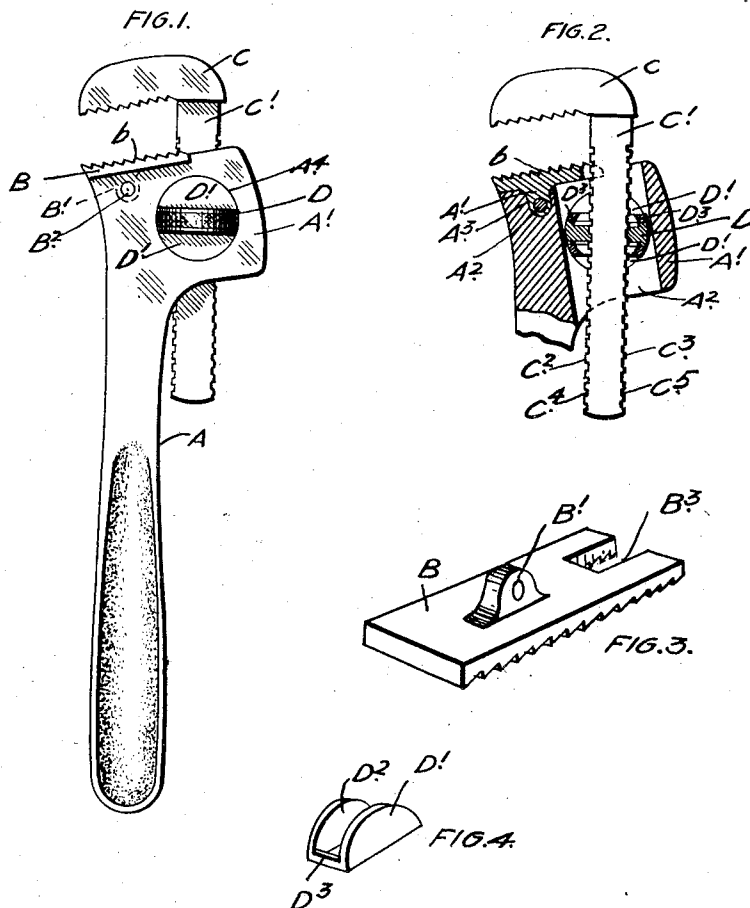


W. A. HYLE.
PIPE WRENCH.
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1,026,040.

Patented May 14, 1912.



WITNESSES.

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UNITED STATES PATENT OFFICE.

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PIPE-WRENCH.

1,026,040.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM ANDREW HYLE, of the city of Toronto, in the county of York, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Pipe-Wrenches, of which the following is the specification.

My invention relates to improvements in pipe wrenches, and the object of the invention is—first—to provide such a form of jaw as will insure a perfect grip on the pipe without any liability of slip—secondly—to prevent any liability of the pipe locking on the lower jaw and—thirdly—to dispense with the spring and yet devise a means, whereby the head of the jaw may be swung backwardly in order to facilitate its ready adjustment to the pipe. To effect these objects I have constructed my wrench of a main body or member having a removable jaw provided with a notch at the rear end, and teeth formed from end to end and also provide a rectangular orifice extending from top to bottom through the back of the stationary jaw in which the adjustable jaw is fixed, the said portion of the body forming the walls of the orifice having circular lateral openings opposite each other, and an adjustable jaw member provided with a shank rectangular in cross section and formed at each side with teeth forming portions of the thread of a screw, a knurled nut fitting around the shank within the circular recesses, and sectoral blocks one at each side of the nut through which the shank extends, such nut being threaded, so as to fit the teeth of the shank and forming a means for adjusting the latter and the jaw member, the parts being otherwise constructed and arranged as hereinafter more particularly explained.

Figure 1, is a side elevation of my wrench complete. Fig. 2, is an elevation of the upper portion of the wrench showing the body partially in section. Fig. 3, is a perspective view of the removable jaw in the reverse position. Fig. 4, is a perspective view of one of the sectoral blocks.

In the drawings like letters of reference indicate corresponding parts in each figure.

A is the main body of the wrench having an enlarged upper portion A', which is provided with a recess of rectangular contour A² extending from the top to the bottom of the portion A'.

B is a removable jaw member provided with the usual teeth and depending lug B' by which it is held in position by means of a pin B² extending through a hole in the lug B' and the body A. The lug B' fits in a recess A³ in the body A. It will be noticed that the teeth *b* extend to the rear end of the removable jaw B, which is provided with a notch B³. The pin B² may be readily removed when it is desired to substitute a new jaw.

C is the adjustable jaw, which is provided with the usual teeth and a shank C' substantially rectangular in cross section and having two of the edges C² and C³ provided with a series of notches C⁴ and C⁵ forming portion of a screw thread.

D is a knurled nut, which is internally threaded to fit the thread on the shank C', such knurled nut fitting within the circular recess A⁴ at each side and being the means for adjusting the movable shank.

Sectoral blocks D' are provided one at each side of the knurled nut to fill up the remaining portions of the circular recess A⁴. The blocks D' are, of course, provided with recesses D² through which the shank extends, the two sides of the sectoral blocks being connected by cross bars D³.

It will be noticed that the shank C' extends through the notch B³ of the removable jaw and as the teeth extend up to the shank at all times there is no liability of the pipe locking on the lower jaw.

The adjustment of the movable jaw is readily made by means of the knurled nut, so as to take a larger or smaller pipe as desired. The movable jaw may also be swung on a pivot formed by the sectoral blocks and knurled nut located in the recess A⁴, so as to throw the outer end of the jaw farther away from the outer end of the stationary jaw and thereby enable the ready adjustment of the wrench to the pipe.

In constructing my wrench I find it essential when making the stationary and movable jaws that the angle of such jaws in relation to the shank of the movable jaw must be at approximately eighty degrees in order to always insure of an effectual grip upon the pipe when adjusted thereto.

What I claim as my invention is:

In a pipe wrench, the combination with the main body member provided with an enlarged jaw member and having an orifice

extending through the enlarged jaw member at the back and provided with side circular recesses, of an adjustable jaw member provided with a screw threaded shank, a nut
5 internally threaded to fit the shank and located in the circular recesses, and sectoral blocks fitting above and below the nut and

provided with openings through which the shank passes as and for the purpose specified.

WILLIAM ANDREW HYLE.

Witnesses:

B. BOYD,
M. EGAN.

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