

(No Model.)

A. L. ENGELBACH.
PIPE WRENCH.

No. 471,471.

Patented Mar. 22, 1892.

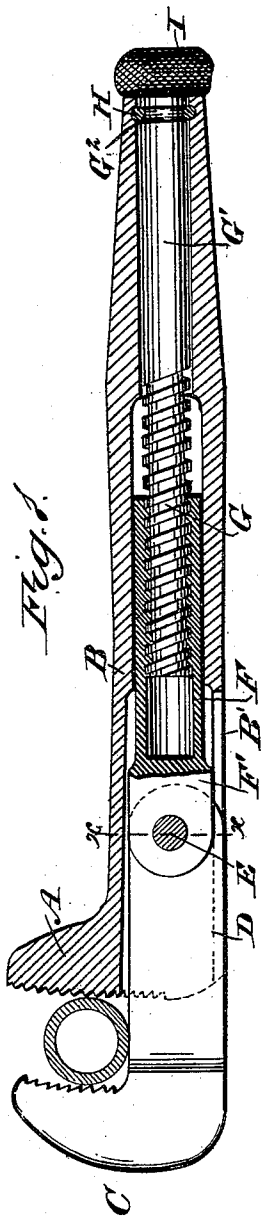


Fig. 2.

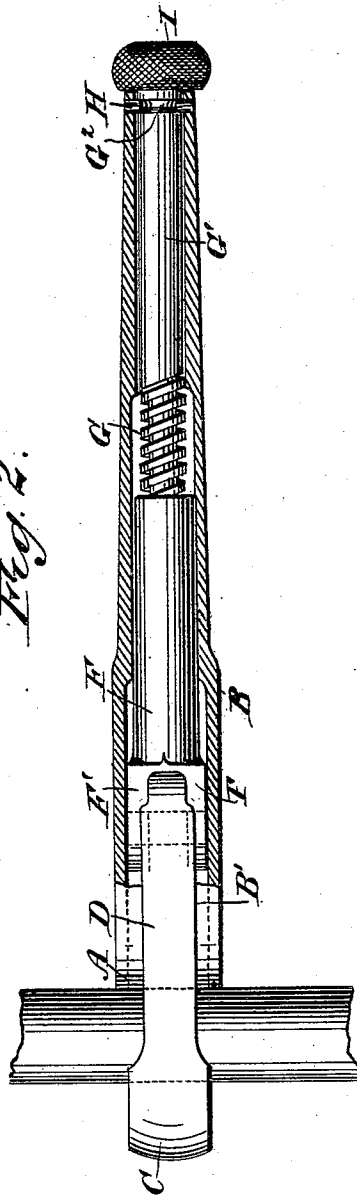


Fig. 3.

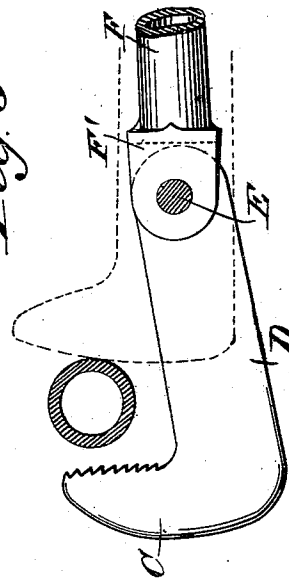
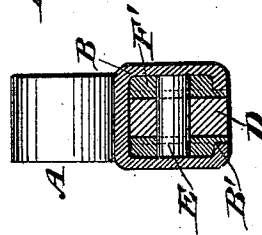


Fig. 4.



WITNESSES:

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AUGUSTUS L. ENGELBACH, OF LEADVILLE, COLORADO.

PIPE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 471,471, dated March 22, 1892.

Application filed July 6, 1891. Serial No. 398,483. (No model.)

To all whom it may concern:

Be it known that I, AUGUSTUS L. ENGELBACH, of Leadville, in the county of Lake and State of Colorado, have invented a new and Improved Pipe-Wrench, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved pipe-wrench which is simple and durable in construction, not liable to get out of order, and arranged to securely grip the pipe and readily release the same whenever desired.

The invention consists of a jaw fixed integrally on the handle, a swinging jaw pivoted on a nut fitted to slide in the handle, and a screw-rod mounted to turn in the handle and engaging the said nut.

The invention also consists of certain parts and details and combinations of the same, as will be hereinafter fully described, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional side elevation of the improvement. Fig. 2 is an inverted plan view of the same with parts in section. Fig. 3 is a side elevation of the swinging jaw and the nut, and Fig. 4 is a transverse section of the improvement on the line *xx* of Fig. 1.

The improved pipe-wrench is provided with a jaw A, fixed on one end of a handle or body part B, of any desired shape. A swinging jaw C is adapted to be moved opposite the fixed jaw A and is formed on the end of an arm D, hung on a pivot E, held in the forked end F' of a nut F, mounted to slide longitudinally in the hollow handle B. The back of the handle B is formed at its outer end with a slot B', leading to the hollow opening in the handle and through which is adapted to swing the arm D, carrying the jaw C. The forked end F' of the nut F is preferably made rectangular in cross-section, fitting into a corresponding hollow opening in the handle B, so that the said nut does not turn, but is free to slide longitudinally in the handle. The internal screw-thread of the nut F is engaged by a screw-rod G, mounted to turn in the end of the handle B, having a solid part G', formed with an annular groove G², engaged by pins

H, held in the handle, so that the said screw-rod G can be turned in the handle without permitting it to move longitudinally. 55

On the extreme outer end of the solid part G' of the screw-rod G is arranged a knob I, abutting against the outer end of the handle and serving to conveniently turn the screw-rod so as to cause the nut F to slide longitudinally, thereby carrying the jaw C toward or from the fixed jaw A, according to the size of the pipe to be gripped. 60

In using the pipe-wrench the arm D, carrying the jaw C, is swung backward, so that the fixed jaw A can be readily moved against the pipe, after which the arm D is swung forward, so as to move the jaw C onto the opposite side of the pipe, as indicated in Fig. 3. The operator then turns the knob I, so as to cause the nut F to slide toward the handle end, whereby the arm D and the jaw C are carried in the same direction, and the jaw C firmly grips the pipe at the opposite side, on which the fixed jaw A rests. Thus the jaw C can be readily moved in position for gripping the pipe and drawn tightly onto the pipe, so that the two jaws A and C securely hold or grip the pipe. As shown in Fig. 1, the opposite faces of the jaws A and C are serrated, so as to insure a firm hold of the jaws on the pipe. In order to release the wrench from the pipe the operator turns the knob I in the opposite direction, so that the nut F slides forward toward the fixed jaw A, carrying the arm D and jaw C in the same direction, whereby the latter disengages or moves away from the pipe. 75 80 85

It will be seen that a pipe-wrench constructed in this manner is not likely to get out of order, is composed of but few strong and substantial parts, and is easily manipulated. 90

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

1. A pipe-wrench comprising a jaw fixed on a handle, a swinging jaw adapted to be moved in line with the fixed jaw, a nut fitted to slide in the handle, and a screw-rod mounted to turn in the handle and engaging the said nut, substantially as shown and described. 100

2. In a pipe-wrench, the combination, with a handle and a jaw fixed thereon, of a jaw held on an arm and adapted to be moved opposite the said fixed jaw, a nut fitted to slide

longitudinally in the hollow handle and on which the said arm is pivoted, and a screw-rod mounted to turn in the said hollow handle and engaging the said nut, substantially
5 as shown and described.

3. In a pipe-wrench, the combination, with a handle formed with a rectangular opening and a slot in the back, of a jaw fixed integrally on the said handle, a nut fitted to slide
10 longitudinally in the said rectangular opening of the handle, an arm pivoted on the said nut and adapted to swing through the slot in the back of the handle, and a jaw held on the said arm and adapted to be swung opposite
15 the said fixed jaw, substantially as shown and described.

4. In a pipe-wrench, the combination, with a handle formed with a rectangular opening and a slot in the back, of a jaw fixed integrally on the said handle, a nut fitted to slide
20 longitudinally in the said rectangular opening of the handle, an arm pivoted on the said nut and adapted to swing through the slot in the back of the handle, a jaw held on the said arm and adapted to be swung opposite the
25 said fixed jaw, and a screw-rod mounted to turn in the said handle and engaging the said nut, substantially as shown and described.

AUGUSTUS L. ENGELBACH.

Witnesses:

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