

J. H. Doolittle,

Wrench.

N^o 35,971

Patented July 22, 1862.

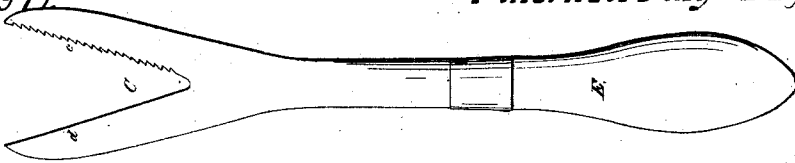


Fig. 1.

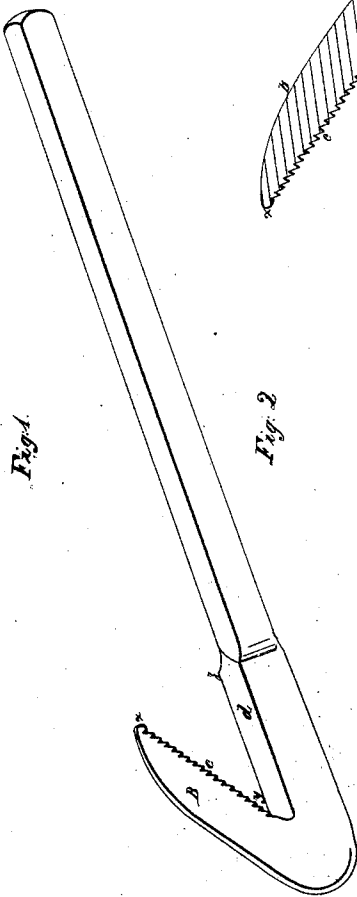


Fig. 2.

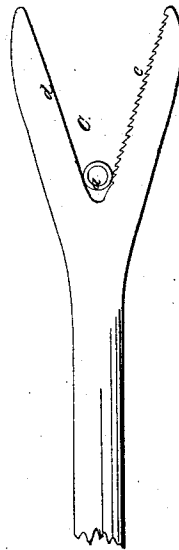
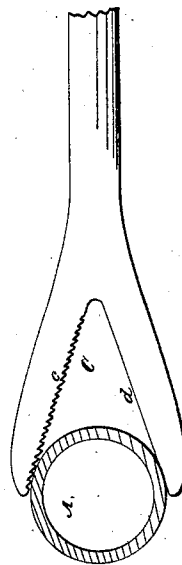


Fig. 3.



Witnesses:

George Bristol

J. H. Doolittle

Inventor

J. H. Doolittle

UNITED STATES PATENT OFFICE.

J. H. DOOLITTLE, OF DERBY, ASSIGNOR TO HIMSELF, AND FRANKLIN FARREL, OF ANSONIA, CONNECTICUT.

IMPROVEMENT IN WRENCHES.

Specification forming part of Letters Patent No. 35,971, dated July 22, 1862.

To all whom it may concern:

Be it known that I, J. H. DOOLITTLE, of Derby, in the county of New Haven, in the State of Connecticut, have invented a new and useful Pipe-Wrench; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this application.

My invention relates to a novel kind of "pipe-wrench," or wrench for grasping and turning pipe or other cylindrical objects; and my invention has for its object a simple form of wrench which without any complication or adjustment of parts shall be capable of firmly grasping and turning pipe (or other round objects) of various diameters or sizes; and to these ends my said invention consists in constructing a wrench of a simple angle-iron, one leg of which is roughened or serrated, the other smooth, as hereinafter fully described.

To enable those skilled in the art to make and use my invention, I will now describe the same, referring by letters to the accompanying drawings, forming part of this application, and in which—

Figure 1 is a perspective view of one of my improved wrenches. Fig. 2 is a longitudinal section through the center of the same. Fig. 3 is an elevation of a modification of my invention; and Fig. 4 embraces partial side views of a wrench, illustrating its application to large and also small pipe, and particularly referred to hereinafter.

In the wrench shown at Figs. 1 and 2 a single piece of metal is employed with one end bent over at B to form an angle, xyz . One leg of the angle c is serrated or toothed, as seen, while the other, d , is left plain or smooth. I make the angle xyz between thirty degrees and forty degrees; but the angle is not material so long as it is such as will grasp the object properly.

At Figs. 3 and 4 I have shown the wrench formed with a fork, C, and handle E. The latter may be made of wood and attached in the same manner as that of the ordinary screw-wrench, if desired. In this modification the grasping-angle, it will be observed, is the same as in the other, though bearing a different

relative arrangement with the handle portion of the tool.

At Fig. 4 A and a represent two different sizes of pipe, the largest and the smallest, upon which the same (angle) wrench operates perfectly. From this figure it will be seen that one of my wrenches of the size in the drawings will grasp any size pipe from A down to a .

Previous to my invention various constructions of pipe-wrench have been suggested and employed, in all of which there are adjustable or movable parts, (or both,) to enable the tool to operate upon different-sized pipe. I have discovered that a simple angle—that is to say, two fixed surfaces arranged at an angle with each other less than a right angle—with one of its legs roughened will firmly grasp any diameter of pipe around which it may be placed, and by making a wrench embodying this idea I produce a tool which is more simple, economical, and desirable than any heretofore made for the same purpose.

It is obvious that my invention is subject to various modifications, all of which I desire to be protected in. I have said that one of the legs of the angle is smooth; but it will be understood that although it is only necessary to roughen one of them the other may be rough too without impairing the effectiveness of the wrench. I prefer to have one leg smooth, because it will work perfectly and is in other respects more desirable than when made otherwise.

Having described my new wrench, and not wishing to limit myself to any particular mode of embodying the principle of the invention, what I claim as new, and desire to secure by Letters Patent, is—

A wrench formed with an angle, substantially as hereinbefore described, for the purpose set forth.

In testimony whereof I have hereunto set my hand and affixed my seal this 21st day of April, 1862.

J. H. DOOLITTLE. [L. S.]

In presence of—

GEORGE BRISTOL,
J. KELLINGBECK.