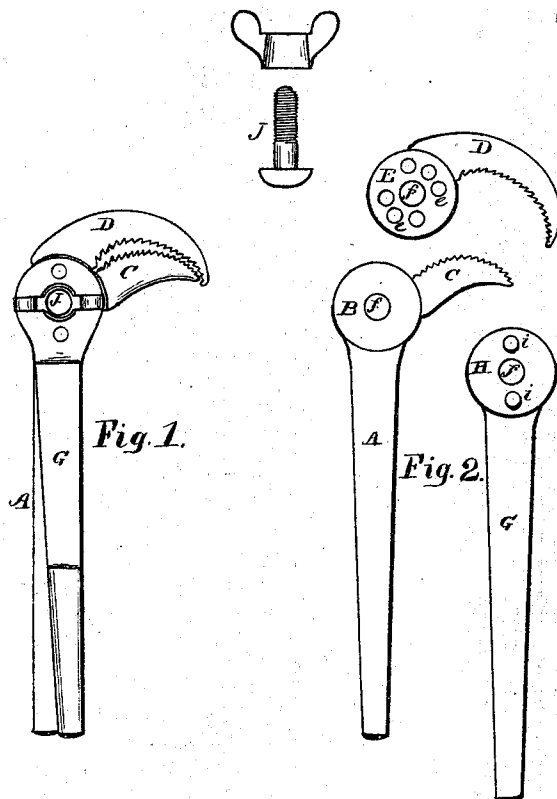


J. RIGG.
Pipe-Wrenches.

No. 139,520.

Patented June 3, 1873.



Witnesses.

Geo. W. Tibbitts
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UNITED STATES PATENT OFFICE.

JOHN RIGG, OF CLEVELAND, OHIO.

IMPROVEMENT IN PIPE-WRENCHES.

Specification forming part of Letters Patent No. 139,520, dated June 3, 1873; application filed April 4, 1873.

To all whom it may concern:

Be it known that I, JOHN RIGG, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a new and Improved Adjustable Pipe-Wrench, of which the following is a specification:

This invention relates to an adjustable pipe-wrench in which there are two curved jaws, arranged in such a manner that they may be readily adjusted in their relation to the handles to fit a variety of sizes of pipe; they are also so constructed that their gripping surfaces are parallel to each other, whether open or closed, and their relation to each other is such that when closed on a pipe for turning it the handles are together, and are grasped in one hand of the operator, so that the jaws do not gripe tighter by closing the handles, but the handles act as a simple lever, the outer jaw drawing in a curved line around the pipe and toward the pivot of the two jaws.

In the accompanying drawings, Figure 1 is a perspective view of my improved wrench. Fig. 2 represents the several parts composing the said wrench detached.

A, Figs. 1 and 2, represents a bar having a disk, B, at its upper end, and on one side of said disk is made the smaller and permanent jaw C of the wrench; this comprises one piece. D is a movable jaw, and consists of a disk, E, pierced with a series of holes, *e e*, around the center or pivot hole *f*. This jaw is curved in like manner to the jaw C, and both have their contact surfaces serrated or toothed. The jaw D and disk E comprise the second piece. G is a bar, like that of A, and has a disk, H, at its upper end, which is offset from the bar, to

give space between the disks B and H for the disk E to lie in when the bars A and G are together. The disk H has two pins, *i i*, which enter two of the holes *e e*, when the wrench is put together. Through all the disks is a pivot-hole, *f*, for the bolt J, which holds the wrench together, and on which the movable jaw D turns.

To adjust the wrench for various sizes of pipe, the nut on the bolt J is loosened sufficiently to raise the disk H, withdrawing the pins *i i* from the holes, and turning the bar G to the right or left and inserting them in other holes, and again turning the nut down. By this means the wrench is readily adjusted for use. The jaws are thus opened, so that when the bars are in line together the wrench is not made to pinch the pipe any harder, which would incline to press the pipe out of shape, but by bearing on the bars to turn the pipe the jaw D inclines to gripe the pipe in proportion to the power necessary to turn it, and the gripe is such that it is impossible for them to slip.

I claim—

The herein-described wrench, consisting of the bar A having a disk, B, and a permanent jaw, C, the movable and adjustable jaw D having disk E with holes *e e*, the bar G having disk H and pins *i i*, and the bolt J, when constructed, combined, and arranged substantially as shown, and for the purpose set forth.

JOHN RIGG.

Witnesses:

GEO. W. TIBBITTS,
D. STEPHENS.