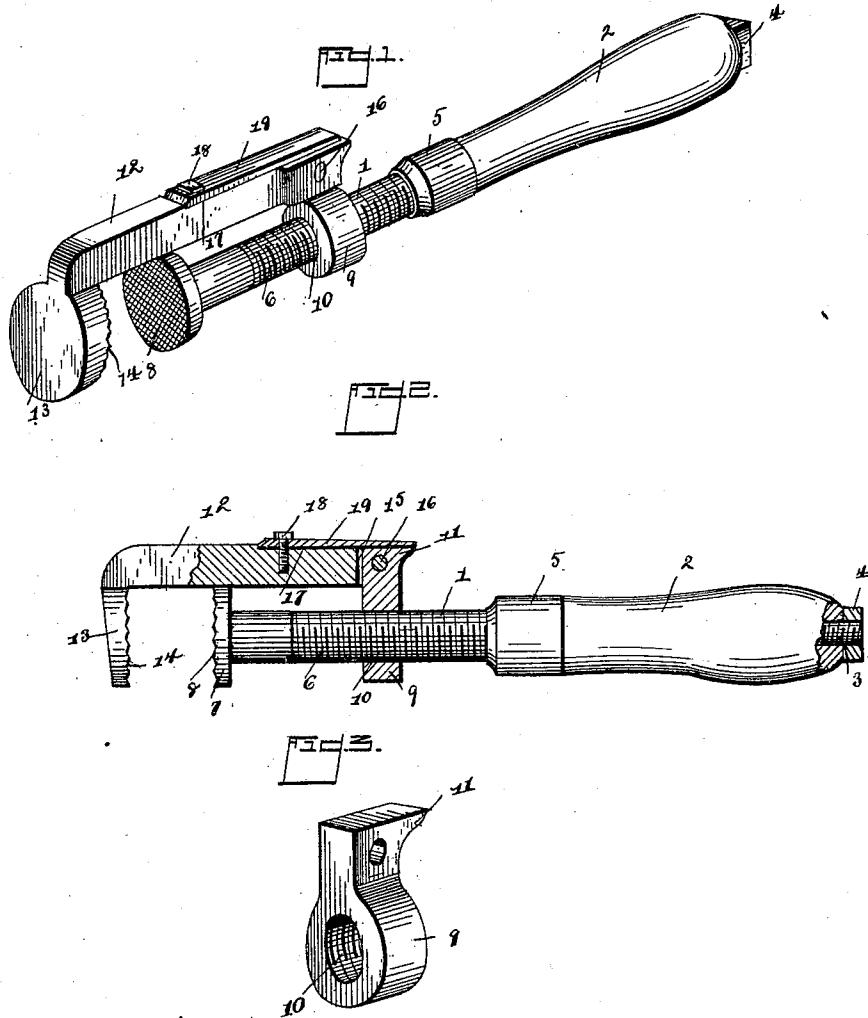


(No Model.)

E. MURPHY.  
PIPE WRENCH.

No. 460,591.

Patented Oct. 6, 1891.



Witnesses:

Chas. A. Ford.

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Inventor

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By his Attorneys,

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# UNITED STATES PATENT OFFICE.

EDWARD MURPHY, OF URICH, MISSOURI.

## PIPE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 460,591, dated October 6, 1891.

Application filed June 9, 1891. Serial No. 395,709. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD MURPHY, a citizen of the United States, residing at Urich, in the county of Henry and State of Missouri, have invented a new and useful Pipe-Wrench, of which the following is a specification.

This invention relates to improvements in pipe-wrenches; and the objects in view are to provide a wrench of cheap, durable, and powerful construction adapted to firmly grasp or grip a pipe or rod and to be capable of being operated conveniently and with facility.

Other objects and advantages of the invention will appear in the following description, and the novel features thereof will be particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a perspective of a pipe-wrench constructed in accordance with my invention, the same being shown in position upon a pipe. Fig. 2 is a vertical longitudinal section. Fig. 3 is a detail in perspective of the jaw-supporting collar.

Like numerals of reference indicate like parts in all the figures of the drawings.

In practicing my invention I employ a cylindrical stock 1, which is reduced from about its middle to its lower extremity and inserted in a handle 2, the lower end of the shank formed by the reduction being threaded, as at 3, to receive a nut 4 for securing the handle in position. The upper end of the handle is encircled by a ferrule 5. From the ferrule to near its upper end the stock is provided with a screw-thread 6, and above the screw-thread terminates in a circular disk or head 7, the upper face of which is serrated in opposite directions, forming teeth 8.

9 designates a collar having an interiorly-threaded opening 10 and mounted upon the screw-thread 6 of the stock, said collar being provided with a laterally-projecting perforated lug 11 at one side, the rear end of which is extended downwardly a slight distance, as shown.

12 designates an inverted-L-shaped jaw, the upper end of which terminates in a circular head or disk 13, the under side of which is transversely toothed, as at 14, while the lower end of the shank of the L-shaped jaw is bifurcated, as at 15, to embrace the perforated lug 11 of the collar, and through the

bifurcation of the shank and perforation of the lug a rivet 16 is passed. The rear face of the shank of the jaw is provided from its center to its lower end with a shallow recess 17, and secured within the same by a screw 18 is a flat spring 19, the lower end of which is by the screw held snugly against the rear end of the lug 11, and therefore exerts a tendency to maintain the inverted-L-shaped jaw in parallelism with the stock of the wrench.

In practice the jaw is pressed back against its spring, so as to engage the pipe or rod, and the handle drawn forward, so that the two disks or heads bind upon the object and a firm grip is maintained. It will be observed that after pressing the spring-pressed jaw to the rear, so as to engage the pipe or rod, and releasing the same the spring in its attempt to bring the jaw and stock in parallelism will form a grip upon the pipe. It will be understood, of course, that either the jaw or the handle may be rotated to increase or decrease the distance between the two disks for the purpose of accommodating large and small pipes and rods.

Having described my invention, what I claim is—

1. In a wrench of the class described, the combination, with the cylindrical threaded stock terminating at its upper end in a head or jaw, of a collar threaded on the stock, and an inverted-L-shaped jaw pivoted to the collar and terminating at its upper end in a head adapted to coact with that of the stock, substantially as specified.

2. In a wrench of the class described, the combination, with the cylindrical stock terminating at its upper end in a circular threaded head and at its lower end provided with a handle, of a collar threaded on the stock and provided at one side with a laterally-projecting perforated lug having a rear flat bearing end, an L-shaped jaw terminating at its upper end in a head and having its lower end bifurcated to embrace the lug, a rivet passed through the bifurcation and the lug, a flat spring located at the rear side of the L-shaped jaw and bearing on the flat end of the lug, and a screw passed through the upper end of the spring and into the jaw, substantially as specified.

3. In a wrench of the class described, the

combination, with the cylindrical threaded  
stock terminating at its upper end in a head  
or jaw, of a collar threaded on the stock, an  
inverted-L-shaped jaw pivoted to the collar  
5 and terminating at its upper end in a head  
adapted to coact with that of the stock, and a  
spring connection between the jaw and collar  
at the pivot-point, substantially as specified.

In testimony that I claim the foregoing as  
my own I have hereto affixed my signature 10  
in presence of two witnesses.

EDWARD MURPHY.

Witnesses:

M. L. DUVALL,  
I. C. LEONARD.