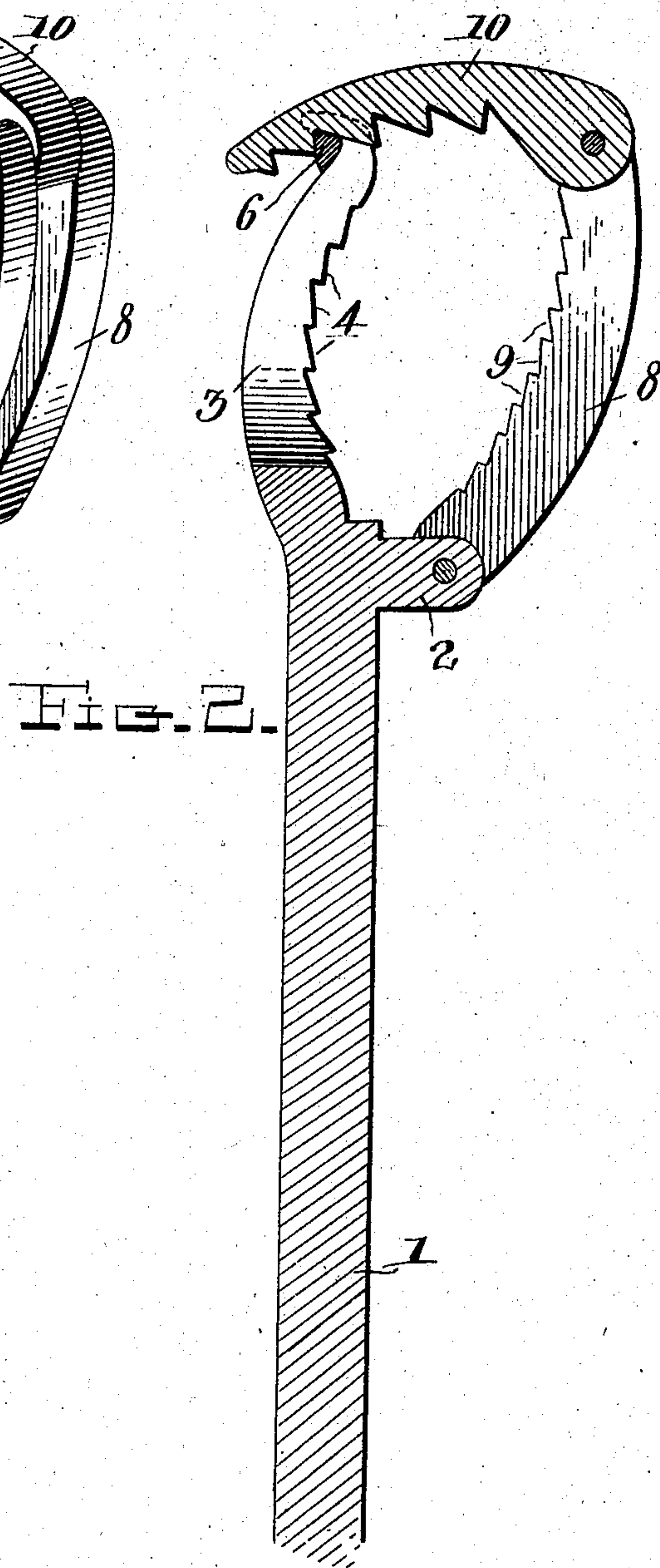
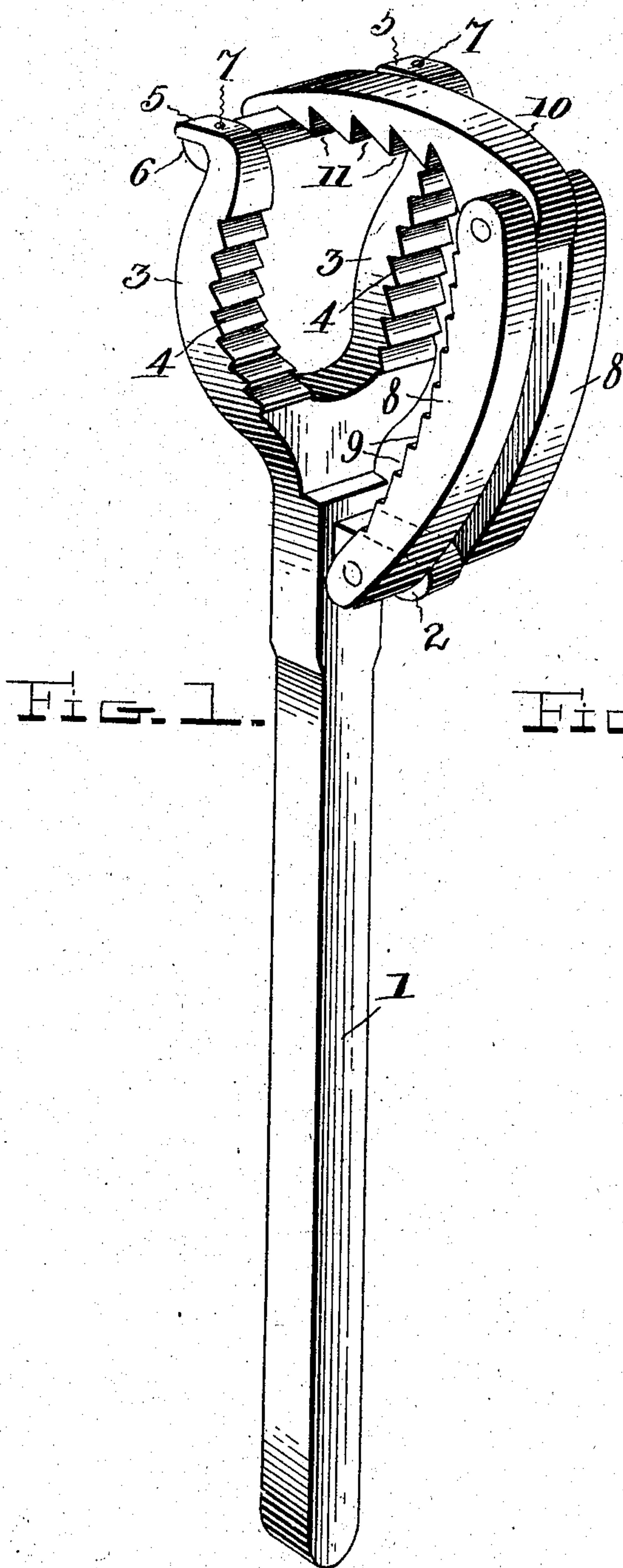


No. 815,694.

PATENTED MAR. 20, 1906.

F. FISHER.  
PIPE WRENCH.

APPLICATION FILED OCT. 12, 1906.



Witnesses  
Jas A. Kochl.  
Ernest F. Riley

Inventor  
F. Fisher.  
by *Henry D. Long*  
Attorneys



# UNITED STATES PATENT OFFICE.

FRED FISHER, OF IRONTON, MISSOURI, ASSIGNOR TO JOSEPH MADLINGER,  
OF IRONTON, MISSOURI.

## PIPE-WRENCH.

No. 815,694.

Specification of Letters Patent.

Patented March 20, 1906.

Application filed October 12, 1905. Serial No. 282,406.

*To all whom it may concern:*

Be it known that I, FRED FISHER, a citizen of the United States, residing at Ironton, in the county of Iron and State of Missouri, have invented new and useful Improvements in Pipe-Wrenches, of which the following is a specification.

This invention has relation to pipe-wrenches; and it consists in the novel construction and arrangement of its parts, as hereinafter shown and described.

The object of the invention is to provide a wrench for pipework which will easily and rapidly grip the pipe, is simple and cheap in construction, and which can be folded up into compact form when not in use in order that it may take up but little space in tool-kit or for shipping purposes.

In the accompanying drawings, Figure 1 is a perspective view of the wrench. Fig. 2 is a longitudinal sectional view of the same.

The wrench consists of the handle 1, which is provided with the lug 2. The working end of the handle 1 is provided with the integral bifurcations 3, which are provided on their faces with the ratchet-teeth 4. The said bifurcations are slightly curved or concaved along their longitudinal axes, as shown in Fig. 2. The extreme outer ends of the bifurcations 3 are provided with the integral shoulders 5, which extend substantially at right angles to the longitudinal axes of the said bifurcations. The cross-bar 6 connects the said bifurcations and is riveted to the same, as indicated at 7 in Fig. 2.

The jaws 8 are pivoted at their lower ends to the lug 2 and are slightly curved or concaved along their longitudinal axes. The inner faces of the said jaws are provided with the ratchet-teeth 9. The link 10 is pivoted at one end between the outer ends of the jaws 8 and is provided along its under surface with the ratchet-teeth 11, which are adapted to engage the cross-bar 6 in a manner as indicated in both figures of the drawings. The said link 10 is slightly curved or concaved along its longitudinal axis.

The operation of the wrench is as follows: The pipe is inserted between the ratchet-faces 4 of the bifurcations 3, and the ratchet-faces 9 of the jaws 8 are then swung toward the bifurcations 3 until the ratchet-faces of

both the said jaws and the said bifurcations come in contact with the sides of the pipe. The link 10 is then thrown over, and one of its ratchets engages the edge of the cross-bar 6. The free end of the handle may then be swung around in the usual manner and the pipe is turned.

It is obvious that a wrench of one size may be used upon several different sizes of pipe, although a wrench of this construction may be made in different sizes to accommodate different classes of pipework. It is also obvious that by turning the wrench over it may also be used for unscrewing the pipe.

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

1. A wrench consisting of a handle having at one end integral bifurcations provided with ratchet-teeth surfaces, a cross-bar connecting said bifurcations together, jaws pivoted to said handle and having ratchet-teeth surfaces, a link pivoted at one end between said jaws and having ratchet-teeth adapted to engage said cross-bar.

2. A wrench consisting of a handle having at one end integral bifurcations provided with ratchet-teeth surfaces and being curved along their longitudinal axes, a cross-bar connecting said bifurcations together, jaws pivoted to said handle and having ratchet-teeth surfaces and being curved along their longitudinal axes, a link pivoted at one end between said jaws and having ratchet-teeth adapted to engage said cross-bar and being curved along its longitudinal axis.

3. A wrench consisting of a handle having at one end integral bifurcations provided with ratchet-teeth surfaces, said bifurcations having their extreme ends bent at an angle to their longitudinal axes, a cross-bar attached to said bifurcations under the bent ends thereof, jaws pivoted to said handle, and having ratchet-teeth surfaces, a link pivoted at one end between said jaws and having ratchet-teeth adapted to engage said cross-bar.

In testimony whereof I affix my signature in presence of two subscribing witnesses.

FRED FISHER.

Witnesses:

C. A. BYERS,

H. CLAY MARSH.