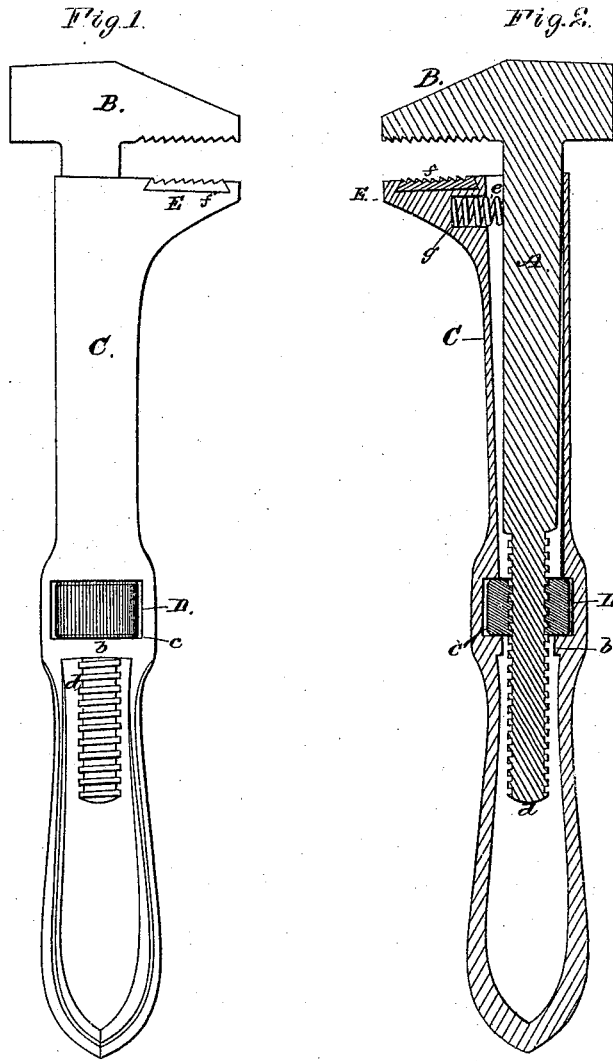


D. C. STILLSON.
WRENCH.

No. 184,993.

Patented Dec. 5, 1876.



Witnesses.
Geo Gray
Ed. H. Hale

Daniel C. Stillson
by his attorney
A. P. Hale

UNITED STATES PATENT OFFICE.

DANIEL C. STILLSON, OF SOMERVILLE, MASSACHUSETTS.

IMPROVEMENT IN WRENCHES.

Specification forming part of Letters Patent No. 184,993, dated December 5, 1876; application filed July 10, 1876.

To all whom it may concern :

Be it known that I, DANIEL C. STILLSON, of Somerville, in the county of Middlesex and State of Massachusetts, have invented new and useful Improvement in Wrenches; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon, which form a part of this specification.

In such drawing, Figure 1 denotes a side elevation, and Fig. 2 a central and longitudinal section of a wrench, constructed in accordance with my invention.

My invention relates to that class of wrenches adapted to be used either as a pipe or a screw wrench.

The object of my invention is to provide a cheap, simple, strong, and durable wrench of this character, one which will operate with equal effect upon a cylindrical or a rectangular, or polygonal shaped body; and my invention consists in the peculiar construction and arrangement of the parts, as hereinafter described and claimed.

In the said drawing, A denotes a tapering metallic bar, having a movable jaw, B, formed on one end thereof, such jaw being provided with a series of teeth on its inner face. The bar A (or the part thereof constituting the shank of the movable jaw) extends partially through a hollow bar, C, and through a rosette or nut, D, disposed in a chamber, *e*, in the said bar, and also through an elongated hole made in the transverse bar *b*, forming one of the walls of the chamber, and into a hollow space formed in the outer end of the bar C, such bar A having a male screw, *d*, cut on its inner end, as shown in the drawing, such

outer end constituting a handle to the wrench. E is the stationary jaw, which is formed on the inner end of the bar C. Each of the jaws B and E is made to have a slight outward inclination to each other. The stationary jaw I prefer to make with a dovetail serrated block, *f*, which is to be affixed in the face of the stationary jaw, as shown in the drawing.

Within the stationary jaw, and at right angles to its shank, is a hollow chamber, *g*, in which is inserted a coiled spring, *e*, the outer end of which bears against the shank of the movable jaw. The chamber, in the bar C, to receive the shank of the sliding jaw, is formed (preferably) tapering, and of width, in the direction of the jaws, somewhat greater than the width of the shank, and at the end adjacent to the shank about one-third greater, such being to allow of the necessary backward action of the jaws while in the act of grasping and turning a pipe or cylinder.

Having described my invention, what I claim is—

The improved screw and pipe wrench, as described, the same consisting of the bar A, provided with the movable jaw B and male screw *d*, and the hollow bar C, provided with a fixed jaw, E, having a spring-chamber, *g*, and spring *e* disposed therein, as shown, the rosette or actuating nut D arranged within a chamber in the bar C, and operating with the male screw *d*, the whole being constructed and arranged for conjoint operation, substantially as shown and described.

In testimony that I claim the foregoing as my own invention I affix my signature in presence of two witnesses.

DANIEL C. STILLSON.

Witnesses:

F. P. HALE,
F. C. HALE.