No. 850,254. PATENTED APR. 16, 1907.

E. J. ROBBINS.

PIPE WRENCH.

APPLICATION FILED APR. 24, 1906.



Fig. 1.

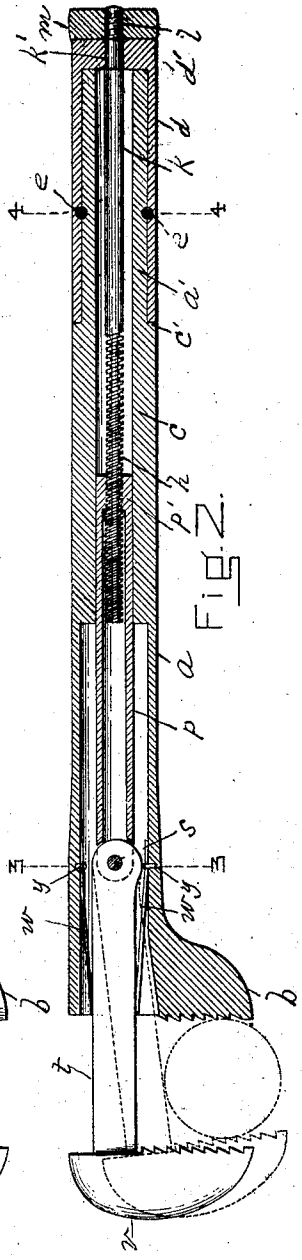


Fig. 2.

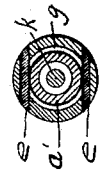


Fig. 4.

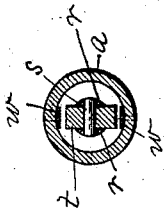


Fig. 3.

WITNESSES=

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PIPE-WRENCH.

No. 850,254. Specification of Letters Patent. Patented April 16, 1907.

Application filed April 24, 1906. Serial No. 313,367.

To all whom it may concern:

Be it known that I, EDWARD J. ROBBINS, a citizen of the United States, residing in Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Pipe-Wrenches, of which the following is a specification.

This invention relates to that class of pipe-wrenches in which a swinging jaw is provided; and it consists in a certain novel construction and arrangement of parts whereby the adjustment of the swinging jaw is facilitated and can be effected from the end of the handle opposite to that provided with the jaws and whereby the grip or engagement with the pipe is rendered quick and efficient.

The nature of the invention in detail is fully described below and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of my improved pipe-wrench. Fig. 2 is a central longitudinal vertical section of the same with the swinging jaw shown in elevation and in full and dotted lines in different positions. Fig. 3 is a cross-section taken on line 3 3, Fig. 2. Fig. 4 is a cross-section taken on line 4 4, Fig. 2.

Similar letters of reference indicate corresponding parts.

a represents a tubular handle or bar terminating in a stationary jaw *b*, toothed or serrated on its face in the ordinary manner. This handle is thickened on its inner surface, as shown at *c*, and its diameter is decreased from the annular shoulder *c'* to its outer end to receive a sleeve *d*, provided with the head *d'*, said sleeve being adapted to rotate on the portion *a'* of the handle or bar by means of pins *e*, which extend through an annular groove *g*, Fig. 4, on the portion *a'* of the handle.

A screw whose threaded portion is lettered *h* and whose shank is lettered *k* is disposed longitudinally in the tubular handle, its shank being squared at *k'*, whereby it fits into and is adapted to rotate with the head *d'* of the sleeve *d*, the screw being further extended into a threaded portion *l*, which receives a nut *m*, whereby the screw is held in position and the nut in frictional engagement with said head *d'*. The annular surface of this nut is preferably serrated in order that it may be easily turned by the thumb and finger.

Fitting slidingly within the portion *c* of the tubular handle is a tubular rod *p*, the outer end *p'* of which is thickened and internally screw-threaded to receive in engagement the threaded portion *h* of the screw. The forward end of the tube *p* is provided with ears *r*, supporting a horizontal pivot *s*, whereby the shank *t* of the swinging jaw *v* is pivotally connected with said tube *p*. This swinging or movable jaw is serrated on its face in the ordinary manner. Above and below its shank *t* springs *w* are secured at *y* to the inner surface of the tubular handle *a*, said springs bearing on the opposite edges of the shank, thus centering it in the position indicated in Figs. 1 and 2.

The wrench is operated by rotating the sleeve *d* on the handle *a a'*, and as the location of this sleeve and the nut *m* is at the extreme end of the handle the adjustment and operation of the wrench are facilitated, especially where the pipe to be grasped is in some remote corner or in some place accessible with difficulty.

The location of the springs *w* inside the handle or bar renders the centering of the shank *t* sure and more exact than would be the case if the springs were located on the outside.

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

In a pipe-wrench of the character described, a tubular handle, a swinging jaw, a shank extending from said swinging jaw into the tubular handle and pivotally connected therewith, and a pair of springs inside the tubular handle and extending therefrom and bearing against the opposite sides of the shank of the movable jaw for the purpose of holding it normally in line with the handle.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EDWARD J. ROBBINS.

Witnesses:

HENRY W. WILLIAMS,

A. K. HOOD.