J. H. DAVIDSON.

WRENCH.

APPLICATION FILED MAY 1, 1917.

1,295,707.

Patented Feb. 25, 1919.

Fig. 1.

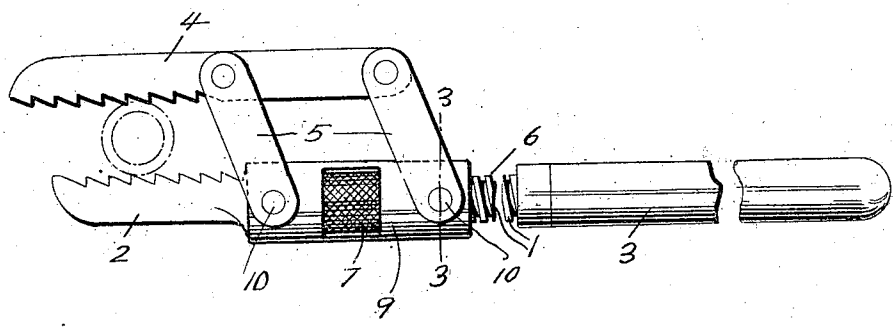


Fig. 2.

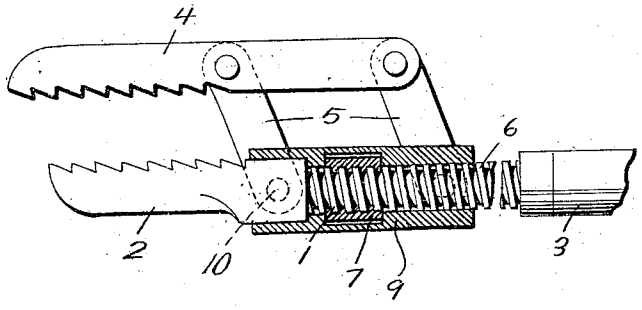
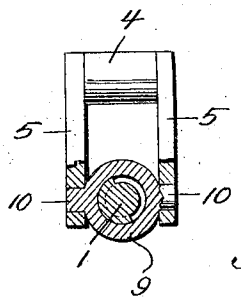


Fig. 3.



INVENTOR

Jesse H. Davidson,

BY Richard B. Owen,

ATTORNEY

WITNESSES

G. Hennessy

L. B. Middleton

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JESSE H. DAVIDSON, OF COLORADO SPRINGS, COLORADO.

WRENCH.

1,295,707. Specification of Letters Patent. Patented Feb. 25, 1919.

Application filed May 1, 1917. Serial No. 165,758.

To all whom it may concern:

Be it known that I, JESSE H. DAVIDSON, a citizen of the United States, residing at Colorado Springs, in the county of El Paso and State of Colorado, have invented certain new and useful Improvements in Wrenches, of which the following is a specification.

This invention relates to new and useful improvements in wrenches and the principal object of the invention is to provide a wrench, of the swing jaw type for use with pipes, with means for adjusting said jaws.

Another object of the invention is to provide a screw and nut arrangement for adjusting the jaw.

Another object of the invention is to connect the links which connect the movable jaw with the stationary jaw to said nut arrangement.

Another object of the invention is to provide a device of this character, which is simple and durable in construction, reliable and efficient in operation and one which can be manufactured and placed upon the market at a minimum cost.

The invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described and specifically pointed out in the appended claim.

In describing my invention in detail, reference will be had to the accompanying drawings, wherein like characters denote like or corresponding parts throughout the several views, and in which:—

Figure 1 is an elevation of the wrench,

Fig. 2 is a like view, with part in section, and

Fig. 3 is a section on line 3—3 of Fig. 1.

In the drawings the numeral 1 designates the shank having a handle 3 at one end and a rigid or fixed jaw 2 at the other, and between these elements the shank is threaded as at 6. Engaging said threads is a knurled nut 7 which rotates within a transverse opening in a sleeve 9. The bore of the sleeve is slidably mounted on the threaded portion 6 of the shank and enlarged at its forward end to engage the butt of the fixed jaw 2. The sleeve has laterally projecting pairs of trunnions 10 with which are pivotally engaged the lower ends of two pairs of parallel links 5, the upper ends of these pairs of links passing astride and being pivotally connected with a movable jaw 4; and by preference the faces of the jaws 4 and 2 are notched or serrated as shown.

In operation, the movable jaw is swung to a position where it can engage a pipe or other object as indicated in dotted lines in Fig. 1, and then the nut 7 is turned to cause the shank to travel backward or rearward within the sleeve. In other words, the links 5 are moved so as to stand oblique, and this draws the movable jaw 4 toward the fixed jaw and grasps the article between their roughened contiguous faces. Now when the handle is moved in a direction to turn the pipe, which would be downward at the right of Fig. 1, the strain thrown upon the movable jaw tends to swing the links 5 still farther, so that the farther the handle is moved the stronger the bite of the jaw upon the article being turned.

It is thought from the foregoing that the advantages and novel features of my invention will be readily apparent.

I desire it to be understood that I may make slight changes in the construction and in the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claim.

I claim as my invention:—

The herein described wrench comprising a shank having a handle at one end, a fixed jaw at the other end, and a threaded portion between said ends, a nut engaging said threaded portion, a sleeve slidably mounted on the threaded portion and having a transverse opening within which said nut is rotatably mounted, trunnions projecting from opposite sides of the sleeve, two pairs of links pivoted at their lower ends on said trunnions, a movable jaw extending between the upper ends of said links, and pivotal connections between them, the whole for operation substantially as described.

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

JESSE H. DAVIDSON.

Witnesses:

R. W. MOSHIS,

BEN KLINBERG.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."